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Forum: Commodifying the “Wild”: Anxiety, Ecology and Authenticity in the Late Modern Era

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Stefanie Gänger and Michael Bollig

Introduction: Commodifying the “Wild”: Anxiety, Ecology, and Authenticity in the Late Modern Era

Anxieties about species extinction, habitat loss, and climate change attributed to the uninhibited commodification of nature—the “massive anthropogenic erosion of biodiversity”—are a theme of our times, marking the Anthropocene.¹ Some of the most acute and severe expressions of ecological guilt and “endangerment sensibilities,” expressed in the media and the social and cultural sciences alike, revolve around the waning of “wild” fauna, flora, and landscapes as a consequence of commodification.² Indeed, much of the public concern at present centers on the dramatic decrease of wildlife populations as a result of the wildlife trade—the dwindling of elephant and lion populations by some 58 percent between 1970 and 2014 alone, for instance, or the extinction of certain rhino subspecies and other charismatic megafauna at the hands of poachers and trophy hunters.³ Though scientists adduce other causes for the decline, including habitat loss and climate change, public debate frequently revolves around the incompatibility of capitalist markets and what stands as their conceptual opposite in the public imagination: a wild, unfallen natural world that is the last refuge both of nature and human innocence.⁴

This forum is concerned with the modern history of the fraught relationship between commodification and the wild. Contributions to the forum explore the impact of market relations on wild fauna and flora—plants and animals customarily conceptualized in opposition to domesticated, captively raised, or cultivated organisms.⁵ Contributors examine the consumptive use of seahorses, *caoutchouc*, elephant tusks, cinchona bark, rhinoceroses, and grizzly bears as malleable raw materials, gourmet delicacies, or extraordinary medicines.

The wild has long been a source and measure of physical health and a place for trophy hunting, musealization, and tourism—namely, for communing with the authentic. It has, in short, long been a consumer good.⁶ The particular concern of the forum is with the socio-ecological anxieties that have resulted from the expansion of market relations of monetary exchange to wild organisms since the early 1800s. The articles are concerned both with ecological misgivings about alterations in the distribution and abundance of species and with worries about these species' loss of authenticity or wildness—that is, with the processes of acculturation or domestication often entailed by commodification.

Chronologically, the forum centers on the centuries spanning from the early nineteenth century to the present, a time in which human beings are generally thought to have become a major biogeochemical force. Indeed, the late modern era is often associated with a hubristic faith in the human ability to alter the natural world, while denying or belittling the degree to which humanity is altered, shaped, and entrapped by it.⁷ The contributions to the forum are interested precisely in that hubris and the resulting lamentation of the supposed ability of humans to single-handedly manage, control, and alter the natural world beyond recognition. The nineteenth century not only saw the advent of that hubris, but it also saw the concomitant (and consequent) rise of ecological anxieties in relation to the wild contributions with which this forum is concerned.⁸ For it was in the early nineteenth century that humans were first confronted with almost irrefutable evidence for the reality of extinction, long after they had apprehended that changes to nature could be anthropogenic.⁹ It was also during the nineteenth century that concern for the environment in the modern sense—that is, discourse about the necessity of allowing diverse living things and habitats to coexist with humanity—first emerged and, with it, practices of conservation and nature protection.¹⁰ Most importantly, perhaps, it was over the long nineteenth century, especially in its second half, that “wilderness,” in a dramatic shift of values, ceased to be a deserted, desolate, barren place where one came only against one's will in fear and was remade in the image of the “romantic sublime,” becoming a place of civilizational longing—of the pristine, moral, and sacred.¹¹ With it, wilderness became a site that, rather than endangering humans, was endangered by them. Wild nature came to be conceptualized in opposition to, and remote from, humanity, capitalism, and civilization; in the mid-nineteenth century, it became the one place “where,” as William Cronon phrased it, “symbolically at least, we try to withhold our power to dominate.”¹² Human interference with the wild has carried both a peculiar fascination and the association of inherent wrongfulness ever since.

Along those lines, the contributions to this forum are indebted to a wide range of mostly North American scholarship on the "received wilderness idea" since the nineteenth century that has long exposed wilderness as "a matter of perception—part of the geography of the mind."¹³ Some of that scholarship has also discussed the relationship between wilderness and capitalism; the alienation from nature that industrial capitalism produced and the concomitant ideas about wilderness as a sanctuary and as mankind's best hope of salvation from it.¹⁴ The ideal of wilderness rendered the wild a valuable commodity, one that possessed "an economic value" and one that could be bought and sold as trophies and live capture or as experience and spectacle, consumed on the very premises.¹⁵ It also entailed, as historians of North America and the British Empire, in particular, have argued, concerns about wild nature's vulnerability in the face of modern technology, capitalism, and trade from early on—anxieties about the possibility of anthropogenic changes and extinction and ensuing discourses and practices of conservation, nature protection, and environmentalism.¹⁶ Indeed, though critiques of the expansion of market-based monetary exchange in social life more broadly are a common theme across the history of Western intellectual thought and far beyond, these censures are rarely as poignant as when market relations override, and defy, the purported inviolacy of wilderness or its late modern surrogate, biodiversity—a seemingly more scientific concept that does perpetuate, however, as scholars have argued, the same values of artlessness, integrity, and numinousness.¹⁷

The contributions to this forum not only shift the focus to perceptions of nature at its most wronged and its most profoundly threatened, but they also study sites often associated with the wild in the Western imagination (southwestern and eastern Africa, the Himalayan and Andean highlands, the American West, and the Amazon rainforest), and, thus, they bring new insights to the field. Though various historians have studied the cultural and cognitive processes in which elements of nature more broadly are marked as commodities, accounted for, and placed in patterns of exchange, much of the literature on wilderness, environmentalism, and capitalism is focused on modern North America and Europe.¹⁸ This forum, in contrast, brings studies on the nineteenth and twentieth centuries, and on Anglo-American ideas of wilderness, together with contributions by anthropologists, early modernists, and linguists examining the non-English speaking world to reveal the idiosyncrasies of the modern Anglo-American tradition and to uncover both continuity and change over time in the ways in which humans categorize aspects of the natural world and assess their own ability to affect or alter it. With their global comparative approaches, the contributions lead us to question, or add nuance to, established chronologies—of

the worldwide circulation of the ideal of wilderness or of anxieties about extinction—in global environmental history.

The articles that follow also underscore the relevance of the particular affordances of ivory, grizzlies, or seahorses in this variation, a question hitherto neglected in many histories and anthropologies of natural resources, and the importance of wild things' peculiar material, reproductive, or behavioral properties in determining the range of their appeal, targets for their charisma, or vulnerability to extinction.¹⁹ Most importantly, however, the contributions highlight the variety and longevity of vernaculars and the differences in how societies relate to their surroundings. They present views of nature that do not distinguish between domesticated and wild; discuss ideas about the wild that are not romantic; highlight efforts at conservation that are not at odds with commodification; study anxieties about extinction that are not ecological; and examine understandings of wild nature that do not exclude humankind—understandings that are “rich in relationships as well as in species.”

Stefanie Gänger is professor of modern history at the University of Heidelberg. Stefanie's work considers the histories of science and medicine in late colonial and early Republican Spanish America as well as in the wider world.

Michael Bollig is professor of social and cultural anthropology at the University of Cologne. Michael's work currently focuses on the social and economic ramifications of conservation in the savannahs of eastern and southern Africa in the context of global environmental governance. He is particularly interested in historical continuities and discontinuities of human–livestock–wildlife interactions.

Notes

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- 1 Gerardo Ceballos et al., “Accelerated Modern Human-Induced Species Losses: Entering the Sixth Mass Extinction,” *Science Advances* 1, no. 5 (2015): e1400253.
- 2 The term “wild” and others used in this forum—“civilized,” “romantic,” and “domesticated”—are contested, historically contingent, and subjective concepts. For readability's sake, however, we use scare quotes only upon first mention.
- 3 Ceballos et al., “Accelerated Modern,” 6090; see also Hans Bauer et al., “Lion (*Panthera Leo*) Populations Are Declining Rapidly across Africa, Except in Intensively Managed Areas,” *Proceedings of the National Academy of Sciences of the*

- United States of America* 112 (2015): 14,894–14,899; Matthew Taylor and Ellis-Petersen, "Last Male Northern White Rhino's Death Highlights 'Huge Extinction Crisis,'" *The Guardian*, March 20, 2018; Harry Cockburn, "Hundreds of Endangered Animals at Risk of Extinction as Authorities Fail to Crack Down on Wildlife Trade," *Independent*, February 14, 2019.
- 4 William Cronon, "The Trouble with Wilderness; or, Getting Back to the Wrong Nature," in *Uncommon Ground: Rethinking the Human Place in Nature*, ed. William Cronon (New York: W. W. Norton & Company, 1995).
 - 5 On the difficulty, and contentiousness, of distinguishing between "wild" and "domesticated" species, see, for instance, Harriet Ritvo, "The Domestic Stain, or Maintaining Standards," *Rachel Carson Center Perspectives: Transformations in Environment and Society* 1 (2017): 19–24.
 - 6 This is definition of "consumptive use" is a slightly modified version of the one proposed in Curtis Freese, *Wild Species as Commodities: Managing Markets and Ecosystems for Sustainability* (Washington, DC: Island Press, 2012), 12; see also Matthew W. Klinge, "Spaces of Consumption in Environmental History," *History and Theory: Studies in the Philosophy of History* 42 (2003): 107.
 - 7 Timothy LeCain, "Against the Anthropocene. A Neo-Materialist Perspective," *International Journal for History, Culture and Modernity* 3 (2015): 1–28.
 - 8 Etienne Benson, *Wired Wilderness: Technologies of Tracking and the Making of Modern Wildlife* (Baltimore: Johns Hopkins University Press, 2010), 3.
 - 9 Fiona J. Stafford, *The Last of the Race: The Growth of a Myth from Milton to Darwin* (Oxford: Clarendon Press, 1994), 118. On extinction, and Georges Cuvier's (1769–1832) widely publicized studies of living and extinct elephants between 1796 and 1806, see Mark Barrow Jr., *Nature's Ghosts: Confronting Extinction from the Age of Jefferson to the Age of Ecology* (Chicago: University of Chicago Press, 2009), 40–41; Martin J. S. Rudwick, *The Meaning of Fossils: Episodes in the History of Palaeontology*, 2nd ed. (Chicago: University of Chicago Press, 1976); see also Christophe Bonneuil and Jean-Baptiste Fressoz, *The Shock of the Anthropocene: The Earth, History and Us* (London: Verso, 2017), xii, 4, 48, 72–79; 170–97.
 - 10 Etienne Benson, "From Wild Lives to Wildlife and Back," *Environmental History* 16 (2011): 3; Corey Ross, *Ecology and Power in the Age of Empire: Europe and the Transformation of the Tropical World* (New York: Oxford University Press, 2017), 240.
 - 11 Cronon, "Trouble with Wilderness."
 - 12 Ibid.
 - 13 The quote is taken from the foundational text by Roderick Nash, *Wilderness and the American Mind* (1967; repr., New Haven: Yale University Press, 2001), 333. For some of the classic texts and collections of writings in the North American "Great New Wilderness Debate," see J. Baird Callicott, "Contemporary Criticisms of the Received Wilderness Idea," in *The Wilderness Debate Rages On: Continuing the Great New Wilderness Debate*, ed. J. Baird Callicott and Michael P. Nelson (Athens: University of Georgia Press, 2008); Cronon, "Trouble with Wilderness"; J. Baird Callicott and Michael P. Nelson, eds., *The Great New Wilderness Debate* (Athens: University of Georgia Press, 1998); see also Michael Soule and Gary Lease, eds., *Reinventing Nature: Responses to Postmodern Destruction* (Washington, DC: Island Press, 1995).
 - 14 Carl Talbot, "The Wilderness Narrative and the Cultural Logic of Capitalism," in Callicott and Nelson, *Great New Wilderness Debate*, 329–30.
 - 15 Nash, *Wilderness*, 343.
 - 16 Benson, *Wired Wilderness*, 239–72; Richard H. Grove, *Green Imperialism: Colonial Expansion, Tropical Island Edens and the Origins of Environmentalism* (Cambridge:

Cambridge University Press, 1995). On colonial efforts to preserve supposedly pristine remnants of “nature in Europe’s tropical empires,” see Ross, *Ecology and Power*, 239–73. On extinction, see Barrow, *Nature’s Ghosts*; Stafford, *Last of the Race*; David Sepkoski, “Extinction, Diversity, and Endangerment,” in *Endangerment, Biodiversity and Culture*, ed. Fernando Vidal and Nélia Dias, Routledge Environmental Humanities Series (New York: Routledge, 2015). On the “endangerment sensibility” and environmental anxieties, see Graham Huggan and Stephan Klasen, eds., *Perspectives on Endangerment* (Hildesheim: Georg Olms Verlag, 2005); Fernando Vidal and Nélia Dias, “Introduction: The Endangerment Sensibility,” in Vidal and Dias, *Endangerment, Biodiversity and Culture*.

- 17 For critiques of the expansion of market-based monetary exchange in social life more broadly, see Agnar Helgason and Gísli Pálsson, “Contested Commodities: Mapping the Moral Landscape of Exchange,” *Journal of the Royal Anthropological Institute* 3 (1997): 454–55. On the relationship between wilderness and biodiversity, see Cronon, “Trouble with Wilderness.” On the origins of the biodiversity discourse in US fieldwork in the Caribbean, see Megan Raby, *American Tropics: The Caribbean Roots of Biodiversity Science* (Chapel Hill: University of North Carolina Press, 2017).
- 18 On the practices of “accounting for nature” since the early 1800s, see Rafael Ziegler and Sabine Höhler, “Nature’s Accountability: Stocks and Stories,” *Science as Culture* 19 (2010): 417–30; Tanya Richardson and Gisa Weszkalnys, “Introduction: Resource Materialities,” *Anthropological Quarterly* 87 (2014): 12–16.
- 19 For a discussion of the literature, see Richardson and Weszkalnys, “Introduction.”

Stefanie Gänger

Cinchona Harvest, Deforestation, and "Extinction" in the Viceroyalty of New Granada, 1752–1811

The most "injurious abuse" the harvesters were culpable of, wrote Francisco José de Caldas (1768–1816) in his 1808 memorandum on the state of the cinchona trees, was that of removing the trees' bark by means of "barbarous" and "destructive" techniques that caused them to wither and die. The harvesters were entirely "careless about the future" of the tree populations, he lamented. Indeed, one could find but "with great difficulty" a "wild (*silvestre*)" cinchona sapling in the Cordillera Real, "the great jungles and forests" that, for over a century, had supplied "all the Kingdoms of the World" with that precious and valued medicinal substance.¹ "Many of the harvesters," Caldas grieved,

"excorticate the tree, break the branches in the most rustic and gross manner [to] take the bark and [thereby] render that individual unusable forever, for, thus mistreated, it inevitably dries up. Others the first thing they do is to fell the

tree at the base, a mindless practice, though less detrimental than the previous one. The stump," he continued, "regenerates into two, three or sometimes, five sprouts. It is to this beneficial natural regeneration that we owe the trees that provide his Majesty, and our pharmacies [with the bark]. Without it, they might perhaps [already] have extinguished the species."²

We tend to associate unsustainable harvest practices, the overexploitation of vegetable raw materials, as well as anxieties about species extinction with the late modern era. As historians have argued for some time now, however, at least some Prussian, French, and, it would seem, Spanish and Spanish American naturalists of the late eighteenth and early nineteenth century were already debating not only the possibility of alterations in the distribution and abundance of vegetation but also that of plant species, in particular, as a result of the economic practices of exploitation and extraction.³ As a matter of fact, by the time Caldas invoked the specter of the extinction of cinchona as a species, the very possibility of species loss and extinction—the conception that the world of plants was fragmented into a series of discrete, fixed, and stable ontic unities that could appear or vanish forever—had just arisen.⁴ Caldas's lament over the impending danger of deforestation, the wild cinchonas' scarcity, and conceivable extinction, as a consequence of their commodification, was not only in some measure still unconventional and controversial but also philosophically and religiously troubling.⁵ More importantly, the weight and meaning of these processes was as yet unfixed, unsettled, and debatable. This article sketches the grounds, and the epistemic contours of the environmental anxiety—the specter of the wild cinchona tree's anthropogenic rarity and closeness to extinction—that Caldas conjured in Andean South America in the late eighteenth and early nineteenth centuries. It reassembles the scale and dynamics of forest loss driven by the cinchonas' commodification and seeks to situate, and read, the construal of these observable consequences in the period's lexis, categories of thought, and order of knowledge.

Caldas was an exceptionally well-connected and well-travelled man. He worked as a peddler in the Andes before training as a botanist and scientist with José Celestino Mutis (1732–1808), Alexander von Humboldt (1769–1859), and Aimé Bonpland (1773–1858). His observation that the harvesting practices adopted by bark cutters were destructive—that carelessness, greed, and ignorance were to be blamed for the trees' destruction—echoed what was conventional wisdom at the time in the principal bark-growing regions in the Quito Audiencia, then part of the Viceroyalty of New Granada. Bark

cutters—"Indians," in the majority—did indeed either fell the trees directly or decorticate the entire trunk of cinchona trees to be able to excorticate more conveniently, and those practices did, as another contemporary phrased it, "cripple the [tree] forever" and almost inevitably caused it to dry up, wither, and die. But a very small minority of trees, "those that had escaped standing, and with some part of their bark," survived a first harvest to regrow a second layer of bark.⁶

Thousands of trees withered and died, presumably as a consequence of destructive harvesting practices intended to satisfy demand across the Atlantic world. By the late 1700s and early 1800s, the bark of the cinchona tree, which prospered only on the precipitous, eastern slopes of the Andes at the time, was one of the Spanish Empire's most coveted and profitable export products, and some 400 tons of that material left South American ports every year.⁷ A widely celebrated febrifuge and universal remedy, the knowledge of which, so it was said, had come to mankind from its simplest, and humblest, specimens—"wild Indians" close to nature and privy to its most coveted secrets—cinchona was in popular demand in societies from Scotland to the Bosphorus and from the Italian peninsula to Illinois.⁸ According to contemporaries, a thirty- to forty-year-old cinchona tree yielded around forty to fifty kilograms of bark; a younger one—say, five or six years old—only some six kilograms.⁹ Calculating with these upper and lower bounds, the harvesting of 400 tons would have occasioned the destruction of between eight thousand and seventy thousand trees per annum. These figures apparently escalated at times, owing to changing consumer tastes and fashions. Miguel García Cáceres, the governor of the Jaén de Bracamoros *gobierno*, lamented in 1785 that the current preference for fine, thin bark in commerce was to be held accountable for excessive tree mortality. With a robust, regular-sized tree yielding on average some five *libras* of thin bark, García Cáceres calculated that it was "necessary to fell one hundred thousand large trees to collect twenty thousand *arrobas* of thin (*fin*) cinchona," some 230 tons. If thick bark, or crust, were also used, it would "only have required thirty-four thousand trees," and it would not have been necessary, García Cáceres grieved, "to miserably destroy sixty-six thousand just to satisfy the whim of the merchants of Europe."¹⁰ Not only were tens of thousands of cinchona trees destroyed every year; close observers soon apprehended that the recovery of tree populations—the "natural regeneration" that Caldas pinned his hopes on—might be slower than anticipated. As Pedro Xavier de Valdivieso y Torre, the governor of Loja, warned already in 1779, one was not to expect a tree to mature "in the short period of two or three years," as did some of his contemporaries, or even to "yield marketable bark (*se sazona su corteza*)" in five or six years. Rather, according to his observations, it took saplings more than two decades to become full-grown trees.¹¹

While cinchona forests had long been believed to be vast, “dense and extensive,” particularly from the mid-nineteenth century, colonial officials, bark merchants, and harvesters in the central and northern Andes began to observe, and express unease about, “much diminution” in the tree populations.¹² A sense of endangerment and impending scarcity increasingly settled in over the later eighteenth century, a veritable gold rush, when hundreds of bark cutters, responding to high market demand and exorbitant prices, went into the bark-growing regions and often brought back hundreds of kilograms each in one season. Already by the 1760s, contemporaries noted the depletion of some particular mountain slopes. Harvest workers complained about the ever greater difficulty involved in searching for the bark “in the roughness of the hills.” They often spent many days in the forests without discovering a single cinchona tree, they consistently declared, because the hills had been “lumbered and destroyed entirely.”¹³ By the late 1770s and early 1780s, there were still some merchants, landowners, and officials who claimed that cinchona supplies were “abundant” and that the hills were “inexhaustible.” However, an awareness of the vulnerability, scarcity, and fragility of cinchona tree populations had already come to supersede and supplant the earlier vision of a land of plenty in official, as well as in popular, discourse.¹⁴ Too notorious was the “decline of the hills where the fine cinchona grows,” as a group of prominent Loja residents phrased it in 1782, “owing to the quantities that had been extracted from them.”¹⁵ By 1788, all investigations pointed toward the same direction: the “near annihilation” of all of the cinchona forests of Loja.¹⁶ In 1809, preoccupation with scarcity had developed into a sense of urgency and finality, intense enough for Caldas to evoke even the specter of extinction. Within some sixteen to twenty square *leguas*—some 67.2 to eighty-four square kilometers—of Loja, Caldas intimated, there was now hardly a “single [cinchona] tree.”¹⁷

Caldas himself was involved in the search for new cinchona harvest areas, the chief measure pursued by the Crown and merchants in response to the threat of cinchona extinction. By the late 1700s and early 1800s, there was considerable controversy both over the boundary and confines of cinchona *vis-à-vis* other plants and over the varieties “cinchona” was to encompass. There was, accordingly, also great disagreement, and dispute, about the extension of the tree’s natural habitat.¹⁸ Bark cutting moved from the original harvest areas to other sites in the Viceroyalties of New Granada and Peru, but often only until misgivings about the “virtue,” identity, or efficacy of the bark in the new sites discredited their viability.¹⁹ Variations in how contemporaries evaluated the urgency of scarcity, and the possibility of extinction, closely correlated with uncertainty about the confines, solidity, and definiteness of the species as well as its potential areas of growth. As elsewhere in Spanish America around 1800, the vastness

of the poorly explored territory, where supposedly extinct species might still be found undetected, was a key argument against the reality of extinction.²⁰ To Caldas and his contemporaries, extinction was thus still a distant and uncertain possibility, but it was a possibility nonetheless.

The late eighteenth and early nineteenth centuries saw both the advent of the modernist faith in the human ability to alter the natural world and the rise of socio-ecological anxieties about it. Concerns with man-made deforestation, destruction, and extinction, which contrasted with earlier views about the general "beneficence of human activity in environmental terms," evidently resonated in the learned, creole circles of the Viceroyalty of New Granada.²¹ Caldas's reading of species rarity, vanishing, and anthropogenic extinction was, like that of most of his contemporaries, not ecological. To him, these alterations did not yet constitute a wanton, potentially catastrophic, violation of a requisite natural equilibrium among constituent species or of the forest as a guarantor of climatic stability.²² Nor was his concern romantic, as in a learned, sublime lament over injury to a preferably wild and undisturbed nature.²³ Such interpretations, though increasingly available in contemporary thought, were still a minority discourse, not yet so compelling as to make them mandatory for Spanish American observers—even someone like Caldas, who quite possibly was aware of them—to subscribe to them.²⁴ Indeed, Caldas was one of the most outspoken supporters of a cinchona plantation system, clearly having no qualms about wild cinchonas becoming cultivated organisms or dislocating a jigsaw piece in nature's even balance.²⁵ Rather, Caldas's and his contemporaries' lamentation of the cinchonas' closeness to extinction was primarily utilitarian, on account of its removing a source of income for the harvest areas' "wretched inhabitants," occasioning the shortage of a "highly useful medicine," and entailing a loss of tax revenue for the Royal Treasury.²⁶ So was that of Indian bark cutters, who lamented the bark's scarcity principally because it made their forays a less profitable, protracted, and more hazardous business that forced them into unfamiliar, rough terrain where they risked accident, starvation, and sickness.²⁷ But, while their and Caldas's reading of deforestation was quite conventional in its pragmatism—apprehensions about deforestation as resource loss through exploitation, misguided stewardship, or happenstance had a long history in the Iberian world and beyond—it was not so in the sense of urgency, possible irrevocability, and finality that had made a foray into their concerns, through the notion of extinction.²⁸

The nineteenth and twentieth centuries not only produced in some measure wilderness, rarity, and extinction as categories, but they also saw them accrue their peculiar, modern meaning, value, and associations.²⁹ Caldas's lamentation over the impending danger

of the wild cinchonas' scarcity, and conceivable extinction, as a consequence of their commodification, marks a key moment in environmental history: the beginning, and worldwide dissemination, of modern endangerment sensibility, a sense of ecological urgency, fatality, and impending loss.³⁰ Historians have argued for some time now that eighteenth-century science in the Iberian world was much more consonant, and interwoven with, its northern counterpart than has hitherto been assumed and that Europeans and Spanish Americans partook of many of the same naturalist discourses and categories.³¹ Spanish officials', Creole merchants', and Indian bark cutters' awareness of, and preoccupation with, the loss and extinction of a wild species, on account of the economic practices of extraction and exploitation, was one such instance. By the late 1700s and early 1800s, the damage done by the commodification of wild plants had just begun to seem calculable to them, as to many others, and, with it, immeasurable.

Notes

- 1 Clemente Sánchez de Orellana y Riofrío, "Dictamen," Archivo General de Indias, Indiferente 1554, n.p., 1776.
- 2 Francisco José de Caldas, *Memoria sobre el estado de las quinas en general y en particular sobre la de Loja*, Anales de la Universidad Central de Quito (1809; repr., Quito: Tipografía y Encuadernación Saletiana, 1907), 14.
- 3 Richard H. Grove, *Green Imperialism: Colonial Expansion, Tropical Island Edens and the Origins of Environmentalism* (Cambridge: Cambridge University Press, 1995).
- 4 Ibid., 245; Mark Barrow Jr., *Nature's Ghosts: Confronting Extinction from the Age of Jefferson to the Age of Ecology* (Chicago: University of Chicago Press, 2009), 23–26, 40–41.
- 5 Grove, *Green Imperialism*, 54, 349; see also Barrow, *Nature's Ghosts*, 29, 31.
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Timothy James LeCain

The Consumption of Humans: How the Danger of Grizzly Bear Attacks in American National Parks Became a Commodity

When scholars think about the commodification of wild nature, they typically assume that whatever the commodity in question, it is we humans who will be consuming it. But, in the case of the grizzly bears living in American national parks, a very different form of commodification and consumption began to emerge in the late 1960s. In the big northwestern parks like Yellowstone and Glacier where sizeable populations of wild grizzly bears (*Ursus arctos horribilis*) remain, a growing number of park visitors sought to consume an experience that had become a rare and strangely reassuring commodity: the statistically remote, but nonetheless entirely real, possibility that they themselves might literally be attacked and (even more rarely) consumed by a wild animal.

Just a century ago, of course, most Euro-American settlers would have found it nearly incomprehensible that humans would value and even seek to preserve the risk of a wild bear attack. As one pair of authors put it in their 1973 discussion of the African crocodile, more

typically “civilized man will not tolerate wild beasts that eat his children, his cattle, or even the fish he deems to be his.”¹ Indeed, Euro-American settlers typically saw the grizzly and other bears as the antithesis of the human and, thus, a useful means of contrasting their own supposedly more civilized state with the natural wildness of the “beast.” Not only did the grizzly bear sometimes kill and eat the settlers’ precious stocks of domesticated animals, but they also occasionally killed and sometimes ate the settlers themselves. Once settlers gained a measure of control over the valleys and neighboring forests, the grizzlies retreated deeper into the mountains, eager to avoid conflict with trigger-happy Americans. Yet their continued presence provided westerners with their first way to commodify the grizzly: by selling the increasingly ritualized experience of hunting down and killing the animals. To be sure, the bodily parts of the grizzly bear itself—most especially, a carefully prepared hide or a mounted head—became valuable commodities in their own right. Yet, even at this early stage, it was clear that grizzly bear hunters were also seeking what contemporary economists have termed an “experiential commodity.”² Here, the affective experience of hunting the bear was as important, and perhaps even more important, than the material commodities extracted from a dead bear’s body. Some believed that the experience of hunting and killing a creature that at least in theory might hunt and kill them would reinvigorate what they feared was a flagging masculinity. In reality, the risks were carefully managed; few bears stood much of a chance against the deadly long-distance accuracy of modern rifles. Reports from the first Euro-American visitors to the Yellowstone area suggest that the animals were common and easily hunted. But, during the 1870s, hunters quickly reduced the once vibrant population to an isolated remnant.³

With the arrival of regular rail passenger service to Yellowstone in 1883, the railroad companies, which also provided hotels and other tourist services in the park, were anxious to present (and profit from) the experience as one that was simultaneously authentic and safe for the whole family.⁴ Perhaps not coincidentally, the hunting of grizzlies and all other wildlife within the park boundaries was also prohibited that year.⁵ Tourists increasingly did not want the bears and other wild animals killed and removed; rather, they wanted a way to experience a bit of wild nature without too much effort or risk. To cater to this lucrative market for a new experiential commodity, first, concessionaires and, eventually, the park service itself deliberately began to feed the bears left over food and garbage from the hotels. Eating under cute signs like “Lunch Counter for Bears Only,” dozens of mostly grizzly bears became the unwitting stars of nightly shows that tourists could watch from grandstands. Rangers stood by with rifles should any of the bears become a threat, but with ample free food to be consumed, the grizzlies had little interest in making a meal

of their audience. By the 1920s, the railroads and hotels frequently promoted the park with ads that depicted the generally more pacific black bears (*Ursus americanus*) as cute and friendly, human-like creatures who would stand on their hind legs and beg for handouts. Technically, it was illegal for tourists to feed either grizzlies or black bears after 1902, but park officials often did little to discourage the practice. Horace Albright, the Yellowstone park superintendent from 1919 to 1929, believed not unreasonably that the chance for such close encounters with the bears attracted tourists and increased popular support for the park.⁶ These seemingly tame and friendly creatures suggested a sort of "Peaceable Kingdom" model of experiential commodification, one in which tourists with adequate financial resources could visit a place where humans and bears—and, by extension, humans and nature more broadly—seemingly lived in harmony.

In the post-World War II era, however, park administrators, biologists, and a growing number of visitors began to question the Peaceable Kingdom approach. Reflecting changing ideas about the concept and value of wilderness, many park officials came to believe that the grizzly bears who visited the park's garbage dumps were being made comical, degraded, and, perhaps most importantly, unnatural. As the authors of one recent report put it, the park sought instead to re-wild the "grizzly bears as awe-inspiring symbols of power and wildness, rather than conjuring images of Yogi bear attempting to steal picnic baskets from Jellystone Park."⁷ By the postwar period, considerable evidence had also accumulated that close interactions between people and bears were risky to both. The Peaceable Kingdom had always been something of an illusion, as park officials had frequently intervened by shooting bears that crossed some ill-defined boundary beyond which they were perceived as dangerous or a nuisance. Some wildlife biologists also began to argue that the behavior of bears that harmed property or humans was not just unfortunate but also unnatural, a consequence of their habituation to people that undermined what would otherwise have been supposedly instinctual fear.⁸ Precisely why the ability of some bears to tolerate and benefit from human actions should be deemed unnatural or degraded was not always clear. Indeed, the entirely natural ability of some bears to better tolerate the proximity of humans was probably a useful survival strategy that allowed them to avoid dangerous battles with other more dominant bears that sought to monopolize backcountry food sources.⁹ But most biologists and administrators seemed to find it self-evident that a bear was wild in inverse proportion to its contact with, and acceptance of, humans. Increasingly, park officials valorized the grizzly bear's lesser tolerance for human habituation in comparison to the more adaptable black bear as one of their most attractive traits. As one 1990 study asserted, the grizzly simply "cannot adapt to the domestication of its habitat," thus making it a

superior emblem of “the power, uncertainty and challenge of wild places.”¹⁰

Seeking to recreate what the historian Alice Wondrak Biel terms the “Wilderness Bear,” Yellowstone administrators began to close the grizzly garbage dumps and actively discourage roadside feeding of black bears.¹¹ In the 1960s, when growing numbers of visitors began to venture into the backcountry, these efforts to limit close human–bear interactions came to be seen as all the more important. In Glacier National Park in far northern Montana, the increase in backcountry campers combined with the careless handling of food and garbage created a dangerous situation. On a single night in August 1967, two different grizzlies killed two women in separate incidents. It was later revealed that employees at Granite Park Chalet, where one of the attacks occurred in a nearby campground, had still been setting out table scraps that generated evening bear visits popular with the tourists.¹² The park service responded to the killings with strengthened regulations for managing garbage (pack-it-in, pack-it-out and bear-proof garbage cans), storing food, closing trails, and dealing with bears thought to be excessively dangerous.¹³ Indeed, regardless of whether or not the bears habituated to human feeding were really acting unnaturally, the evidence suggested that the elimination of anthropogenic food sources helped to reduce violent encounters.¹⁴ True, the numbers of grizzlies initially plummeted following the closing of the garbage dumps, contributing to their listing as an endangered species in 1975. But, by the turn of the millennium, the populations in both Glacier and Yellowstone had largely recovered, confirming the wisdom of the Wilderness Bear management model, at least from a biological perspective.¹⁵

Out of this complex confluence of human and non-human histories emerged the latest and perhaps most intangible way that the grizzly bear has been both protected and commodified. Whereas the Peaceable Kingdom model had provided the tourist with a valuable opportunity to see and even interact with grizzlies and black bears up close, the new commodity in the Wilderness Bear model was something much more ineffable: an affective experience that derived from knowing that the bear was out there, even if rarely seen, and, thus, the remote but still genuine chance that the grizzly might actually attack and (even more rarely) partially consume the visitor. Some hint of this new experiential commodity was already apparent in 1968 when a sow with her cub attacked a schoolteacher and naturalist named Robert Hahn in Glacier. Unlike the two women killed the previous year, Hahn survived the attack, and, from his hospital bed, he issued a telling plea: that the sow that had attacked him not be killed. “It was my fault,” Hahn said. “I was intruding in her territory, and I had no right to be there.”¹⁶ But whatever his “rights” might have been, Hahn had deliberately chosen to intrude into “her territory,”

and this just a year after the 1967 deaths had made the risks of doing so evident. Hahn clearly must have judged the small chance of being attacked as a reasonable risk to take for the rare opportunity to experience a beautiful and authentically wild place.

What is less clear is whether Hahn at least in part also considered the Glacier backcountry a place worth visiting precisely because of that risk. If he did ascribe at least some value to that risk, the stance at that point was still somewhat unusual in the region. In 1968, a number of other Montanans argued that the recent series of attacks demonstrated that grizzlies were too dangerous and should be annihilated. One newspaper warned that tourists would stop visiting Glacier and other Montana wild areas if the grizzlies remained. Yet Hahn's more tolerant view was even then winning out on a wider national stage. In a survey of 3,420 people conducted immediately after the 1967 killings in Glacier, the *Christian Science Monitor* found that only about 3 percent of respondents favored the elimination of the grizzlies.¹⁷ Likewise, fears that grizzly attacks would scare off tourists soon proved unfounded. An examination of the visitor statistics at Glacier and Yellowstone demonstrates that in the years immediately after a fatal grizzly bear attack the number of visitors typically increased rather than decreased. Visitation to Glacier, for example, went up by 9.1 percent in the year following the widely reported 1967 deaths.¹⁸ Of course, the visitation numbers at the two parks were affected by many different variables and have mostly trended steadily upward over the past fifty years. Nonetheless, these numbers do raise an intriguing question: to what extent was the danger posed by a grizzly a key part of an experiential that made Yellowstone and Glacier world-class destinations worth paying significant amounts of money to visit?

To be sure, administrators and scientists never deliberately set out to engineer parks where there was even a remote chance that their human visitors might be attacked and perhaps eaten. To the contrary, they sought to avoid violent encounters between humans and bears in order to better protect both. Nonetheless, as they worked to create or preserve what they viewed as a more natural or wild population of grizzlies, they were also willing to accept that these wild bears would very occasionally harm visitors. Initially, this risk may have seemed an unfortunate, but not unreasonable, price to pay for preserving and protecting the wild grizzly. Further, the risk could be minimized through wise management policies and by educating park visitors on how to avoid bear attacks. Yet, from the start, it also seems apparent that the danger posed by the wild grizzly bear was often seen not solely as a liability but, rather, as a vital part of a true northern Rockies wilderness experience. Consider, for example, the words of Stephen Herrero, one of the leading researchers on bear attacks, who observed in a 1976 scientific paper that even a small chance of a

grizzly attack sets the “mood” for any backcountry visit. “It does not matter if you fail to encounter a grizzly,” he argued. “A partial foot track set in mud showing claw marks well beyond the toes, or a massive scat full of partially digested huckleberries, is enough to make most backcountry travelers feel the presence of the bear.”¹⁹ Another wildlife biologist who had worked in Glacier suggested that the presence of the potentially dangerous grizzly grants the backcountry adventure much of its appeal: “They make you more alert, make you more aware and they add a yeast to life—sometimes too much.”²⁰ A recent report on the Yellowstone grizzlies also stresses how rare, and, thus, presumably valuable, opportunities to experience such a unique risk have become. “To many people, grizzly bears symbolize wildness because they dominate the landscape,” the authors write, and, in doing so, they “remind us of an ancestral world filled with natural dangers and difficulties rarely experienced by most people today.”²¹ The authors do not explain precisely why it is worthwhile to be reminded of those earlier dangers; perhaps its value is assumed to be self-evident.

The Montana-based nature and science writer David Quammen captures the essence of this new experiential commodity in a recent *National Geographic* article celebrating the centennial of the National Park Service. Many today treasure a place like Yellowstone, he writes, because it “is not just a zoo, it’s an authentic wilderness,” a land that is “painted in blood—the blood of many wild creatures, dying violently in the natural course of relations with one another, predator and prey, and occasionally also the blood of humans.” In this place, “your park entrance receipt won’t protect you. You can be killed and eaten.”²² Yet Quammen’s largely celebratory article makes clear that, far from frightening visitors away, this small danger of a grizzly attack today (slightly greater than that of getting hit by lightning) has become a central element of what attracts visitors from around the world. Visitors, it might be added, who need hotels, restaurants, and other conventional commodities as they pursue a most unconventional experiential commodity. While not the primary intent, the engineering of a carefully controlled risk of a bear attack has nonetheless become surprisingly good for the business of catering to park tourists. Indeed, in this light, the ubiquitous signs and warnings about bears, while obviously designed to avoid violent run-ins that even today often end badly for the bears, also have the positive effect of heightening the sense of danger that has become a strangely valuable commodity.

We might be tempted to conclude that this deliberate courting and commodification of an experience that had been the epitome of terror a mere century ago is just another example of the contemporary obsession with adrenaline pumping thrills. Yet, is there perhaps something more profound at work here as well? If earlier experiential

commodifications of the grizzly had sought to allay anxieties about diminished masculine dominance, or, subsequently, to suggest that humans and nature might yet find a way to live in harmony, this latest version is uniquely well suited to the anxieties of the Anthropocene, the supposed Age of Man. Today, at least some of the visitors to the parks no doubt share the growing fear that humans might well have become *too* powerful, that the natural world has been all but eclipsed by the anthropogenic. To be sure, others of a more Promethean turn of mind may revel in this idea as the ultimate expression of the human transcendence of nature.²³ Yet, for many, and perhaps especially those who would elect to hike in grizzly country, the prospect of a world in which humans have come to entirely dominate nature is both bleak and frightening. Given such anxieties, surely there is some reassurance to be found in visiting a place where a dangerous wild animal still dominates the land—a place where you can still viscerally sense that there is something greater and more powerful than us, some enduring remnant of a once untamed, but now rapidly vanishing, natural world that, we hope, might yet be able to save us from ourselves. Today, when human domination has itself become perhaps our greatest danger, there is an odd reassurance to be had in visiting a place where a powerful predator might still dispatch a pathetically defenseless visitor with one swat of her mighty paw. In this supposed Age of Humans, perhaps the most valuable commodity we can consume is the chance to feel that it is humans themselves who might yet be consumed.

Timothy James LeCain is professor of history at Montana State University in the United States. His most recent book is *The Matter of History: How Things Create the Past* (Cambridge University Press, 2017), which develops a neo-materialist theory and method of history. LeCain's first book, *Mass Destruction: The Men and Giant Mines That Wired America and Scarred the Planet* (Rutgers University Press, 2009), was awarded the 2010 best book award by the American Society for Environmental History.

Notes

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- 4 On the role of capital in creating the park experience, see Richard Grusin, *Culture, Technology, and the Creation of America's National Parks* (Cambridge: Cambridge University Press, 2008), especially 11–12.
 - 5 White and Gunther, “Historical Perspective,” 14.
 - 6 Alice Wondrak Biel, *Do (Not) Feed the Bears: The Fitful history of Wildlife and Tourists in Yellowstone* (Lawrence: University Press of Kansas, 2006), 3–4.
 - 7 P. J. White, “Introduction,” in White, Gunther, and van Manen, *Yellowstone Grizzly Bears*, xvi.
 - 8 Walker, “Animals,” 47, notes this view was also applied to wolves. For a broader discussion of changing scientific ideas, see James A. Pritchard, *Preserving Yellowstone's Natural Condition: Science and the Perception of Nature* (Lincoln: University of Nebraska Press, 1999).
 - 9 White and Gunther, “Historical Perspective,” 21.
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 - 17 Herrero, “Conflicts,” 140.
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Paul J. Lane

Material Desires, Ecological Anxieties, and East African Elephant Ivory from a Long-Term Perspective

The East African littoral has been linked to other parts of the world via global connections for at least two millennia, and ivory has long been an important export commodity for certain East African societies. Through a combination of circumstances during the early decades of the nineteenth century, East Africa's ivory became both the most readily available and desirable in Western Europe and North America, and Zanzibar became the main port of export.¹ Several technical inventions, along with accelerating industrialization and changing patterns of social distinction, played a critical role, while the relocation of the sultan of Oman's court to Zanzibar and the entry of merchants based in Salem, Massachusetts, into the Indian Ocean sphere increased the market value of ivory. Customs records, for instance, indicate that the export value of ivory per *frasila* (approximately 15.5 kilograms) roughly tripled between the late 1820s and early 1870s and then almost tripled again over the next twenty years.² The volume of ivory exported from Zanzibar also rose markedly in response to rising demand in the metropolitan centers of Europe and North America. Total ivory imports into the United

Kingdom between 1790 and 1875, for example, rose from around 125 tons to 670 tons, with the sharpest increase occurring after 1840.³ Not all of this was from East Africa. Some came from other parts of Africa, and some was even derived from India, although how much of this was obtained from Asian elephants (*Elephas maximus*) and how much was re-exported African elephant is uncertain. Nonetheless, by the mid-nineteenth century, eastern Africa was the greatest supplier, with exports being channeled to Britain, mainland Europe, and the United States via two main redistribution centers, Zanzibar and Khartoum. The scale of extraction was enormous, and even the more conservative estimates based on historical trade records suggest that between 7,000 and 20,000 elephants were being killed each year at its peak.

ECOLOGICAL ANXIETIES: PAST AND PRESENT

Against this background, it is perhaps no surprise that by the end of the nineteenth century ecological anxiety had emerged that the long-term future of African elephants was endangered by escalating human demand for their tusks. In 1898, for example, the *New York Times* carried an article place and date stamped “Antwerp, 28 August,” under the headline “TO SAVE THE ELEPHANTS.” The statement that followed left no doubt as to who the culprits might be: “The African Animals Nearly All Killed Off by the Ivory Traders—Their Brutal Massacre.”⁴ Bradford Colt de Wolf, the journalist who filed the story, went on to speculate that at the current rate of exploitation elephants were likely to be extinct in the Congo Free State within ten years and offered trade statistics concerning the weight of imports to Antwerp during the 1890s to support his argument. He then outlined the plans to deal with this emerging crisis that had been developed on behalf of the French National Society of the Taming of the African Elephant by Paul Bourdairé, head of mission at the French Ministère des Colonies and “an eminent authority on African elephants.”⁵

Although the idea of taming African elephants might today seem naive, the underlying anxiety expressed by Colt de Wolf has a familiar, contemporary resonance.⁶ In the late nineteenth century, the legitimate trade in elephant ivory and its escalating consumption in Western countries, especially by an ever-growing middle class, were the main focus of concern and blame. By contrast, today’s anxieties over the long-term future of Africa’s forest and savannah elephants focus on the impacts of an expanding illegal trade in ivory, the poaching that feeds this trade, and the corresponding demand at the other end of the modern ivory commodity chain in China and other Asian countries.⁷ Nonetheless, there are a number of similarities

between the content of these anxieties that derive from shared concerns about the effects of commodification. Both, for example, consider overconsumption to be the ultimate driver of the mass extirpation of elephants, even if the uses of ivory, the mechanics of its transformation into desirable objects, and the geographical concentration of these desires have changed.

In the late nineteenth century, objects made entirely or partially from ivory were commonplace in many Western, middle-class households. As Alexandra Kelly has explored, the use of ivory as a raw material was widespread in Victorian-era Britain and the United States (and, most likely, in other parts of the Western world).⁸ Ivory was included in many fashion accessories and in the manufacture of personal grooming items ranging from collar studs and hairbrush handles to vanity sets; as a decorative component of small domestic furnishings; and for making everyday household items such as sewing cases, calling cards, toothpicks, and napkin rings. Ivory was also an important raw material for various professional instruments including rulers, medical syringes, and dental tools. The manufacturers of three items, in particular—piano keys, cutlery handles, and billiard balls—seem to have been voracious consumers of ivory and, especially, of ivory from East African savannah elephants, which was valued for its purity of color and greater ease of working over ivory from other parts of the continent and for its larger size and finer grain relative to Asian elephant ivory.⁹

This upsurge in the use of African elephant ivory for everyday items marked the final stage in its democratization and transformation from older associations in Western societies with elite culture and the Christian church, established during the early medieval period, into a raw material serving mass consumption among a burgeoning middle class with growing disposable incomes.¹⁰ Ivory's ubiquity in everyday life was perhaps also a vicarious means of accessing and taming the wild while, at the same time, keeping Africa's most powerful of "unruly beasts" at bay. If popular fiction and travelogues served to fuel Victorian imaginings of Africa's untamed jungles and life-threatening encounters with wild beasts, ivory's material and tactile properties—its cool silkiness—allowed for its domestication. The sensory properties of ivory, its malleability and absorbent qualities, and its simultaneous ability to resist some of the effects of time to which other materials succumb feature prominently in the descriptions of encounters with ivory by artisans, musicians, and artists alike.¹¹

These attributes shaped desires for ivory as well as how these desires in turn gave form to different ivory objects. Importantly, the affective power of these attributes also changed as they were moved along their commodity chains. The weight of each tusk, documented in great detail by the ivory merchants and customs officers in Zanzibar and drawn upon to measure their economic success, would have had

different resonances for the porters who carried these tusks on their backs from far in the interior and also for the artisan sitting at a lathe or mechanical saw in Sheffield, England, or Ivoryton, Connecticut, turning each tusk or fragment in their hands, weighing and sensing its affordances as a raw material.

In the second decade of the twenty-first century, by contrast, the primary locus of desire for items made from ivory is Asia and, especially, Mainland China, Hong Kong, Malaysia, Thailand, and Vietnam. Unlike in the nineteenth century, consumption and desire appear to be directed more toward ornately crafted items, which, precisely because of the high cost of illegally traded ivory, have made finished ivory objects increasingly less accessible except for the wealthy.¹² In some respects, finished objects made of African elephant ivory may be reverting in these markets to prestige goods rather than to a readily available commodity, and, in this sense, its current status bears some comparison to ivory in medieval and early modern Europe.¹³ One significant difference, however, is the stockpiling of ivory in anticipation of future price rises, particularly as the flow of ivory through both legal and illegal channels is further restricted. According to some recent data, it is this stockpiling that has been driving ivory prices upwards in the Asian markets.¹⁴

BURNING DESIRES

The irony, of course, is that the stockpiling of ivory was also commonplace during the nineteenth- and early twentieth-century ivory trade. A well-known photograph probably taken in the early twentieth century of ivory buyers for the Ivoryton piano key manufacturers Cheney, Comstock, and Company, for instance, shows Arnold Cheney lounging on a huge pile of tusks outside the company godown in Zanzibar.¹⁵ There were likely many more tusks inside judging from Richard Harding Davis's visit around the same time, when he was shown twenty-five thousand dollars' worth of "tusks piled up as carelessly as though they were logs in a wood-shed" in the corner of "one little cellar."¹⁶ A more-or-less-contemporary photograph of the ivory store of Joseph Rodgers and Sons at No. 6 Norfolk Street, Sheffield, similarly depicts serried ranks of large tusks waiting to be worked or sold on.¹⁷

Financial motives undoubtedly lay behind this accumulation of ivory, but unlike in Asia today, stockpiled ivory was held largely to meet current, rather than future, demand by exploiting the affordances that ivory provided for satisfying Western aesthetic desires and notions of social distinction. It is intriguing, therefore, that stockpiled ivory has taken on new meanings and offered up alternative affordances since the late twentieth century. These are aimed at

challenging both the continuing slaughter of Africa's elephants and transforming ivory's status from a "commercial" to a "public" good. This manifests in at least two ways. The first is through the collection and curation of found ivory, recovered principally from national parks and other protected areas by wildlife authorities and held, supposedly indefinitely, in secure storage. Although superficially resembling the vaults holding wildlife collections in natural history museums around the world (many of which in themselves were first assembled through the extractive, celebratory activities of big-game hunters but now are put to work in the name of science and conservation), these collections remain far more dormant, under lock and key and out of the public eye.¹⁸ The affordances that these piles of ivory offer may remain latent, but they are no less potent, periodically stimulating calls for "one-off sales" to generate income for the same wildlife authorities that collect and curate these tusks, while also offering opportunities for corrupt practices and personal enrichment on the part of some of their employees and other government officials.¹⁹

Since 1989 and the introduction of an international ban on ivory sales under the auspices of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), stockpiled ivory has begun to take on a different kind of affordance, allowing nation states to enact a new form of competitive, conspicuous consumption.²⁰ This involves the high-profile, public destruction (typically by burning but also by crushing) of confiscated and legitimately collected raw and worked ivory. At least thirty-one such events are known to have occurred in twenty-three different countries, resulting in the destruction of approximately 250 metric tons of ivory.²¹ The largest such event to date took place, with great fanfare and display of military and paramilitary force and celebrity endorsement, in Nairobi National Park on April 30, 2016, resulting in the destruction of over one hundred metric tons of confiscated ivory valued at around US \$220 million.²² To put this in perspective, the eleven pyres of tusks assembled by wildlife officials, volunteers, and school children from one of Nairobi's international schools probably represented 8,000 dead elephants. In other words, it was more or less equivalent to the total number of elephants killed in a single year at the height of the nineteenth-century legitimate trade and, in terms of weight, under one-sixth of the total tonnage of ivory imported into Britain in 1875 alone.

Intended to symbolize state-level expressions of solidarity with global conservation campaigns to eradicate poaching and the illicit international ivory trade, the effectiveness of these events as a conservation tool is far from clear—obscuring, as they do, failings of state systems for policing and protecting wildlife resources, recurrent allegations of high-level corruption behind the rise in poaching, and inadequate responses to address the legitimate concerns of rural

populations that bear the brunt of human–elephant conflicts in terms of both physical harm (often resulting in death on both sides) and impacts on livelihoods from crop destruction. At the same time, the destruction of the ivory generates atmospheric pollutants and removes the possibility of investigating through combined isotopic and DNA analyses the individual life histories of those elephants whose tusks were destroyed and so generate information critical to understanding mobility patterns, herd demography, and individual genealogies, which all have direct value to the conservation programs these public burnings are intended to reinforce. Burning ivory may remove it from the commodity chain, but, ultimately, it does not solve the problem of keeping elephants alive. For this, we need to re-imagine elephants as “wild sovereigns” with inalienable rights over their habitats and futures and not simply as convenient bearers of a renewable resource that humans continue to desire.²³

Paul Lane is Jennifer Ward Oppenheimer Professor of the deep history and archaeology of Africa at the University of Cambridge. He specializes in the historical ecology, heritage, and archaeology of eastern Africa over approximately the last five thousand years, with emphasis on the transitions to food production, landscape domestication, the trade in elephant ivory, and the archaeology of enslavement and abolition.

Notes

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Lorena Córdoba

White Blood, Black Gold: The Commodification of Wild Rubber in the Bolivian Amazon, 1870–1920

The “rubber boom” played a decisive role in the integration of the Amazon rainforest into the global economy. Between 1870 and 1920, most Amazonian countries eagerly engaged in the rubber trade: first, Brazil, accounting for nearly 80–90 percent of the world market, followed by Bolivia and Peru, with 5–10 percent, and, finally, by Colombia and Venezuela, with a lower production.¹ This article discusses the commodification of rubber in Bolivia from 1880 until its decline in the 1910s. It poses the question of how social perceptions of rubber as a wild, inexhaustible natural resource grounded, and affected, the structure of its exploitation.

As early as 1867, there were reports about rubber tappers in the Bolivian Amazon.² The boom only really set in, however, when American explorer Edwin Heath discovered the connection between the Beni and Mamoré rivers in 1880, and a new export route was opened toward the Brazilian ports of Belém do Pará and Manaus. Major firms like Suárez or Braillard opened branches in London and met the international demand for rubber in Europe and North America, bringing about a “black gold” fever with rubber tappers

rapidly spreading along the banks of the main rivers of the region: Mamoré, Beni, Orthon, Acre, Madre de Dios. There were widespread legends of fortunes made overnight, heaps of pounds sterling and obscene luxuries in the midst of the rainforest:

Rubber barons lit cigars with hundred-dollar bank notes and slaked the thirst of their horses with silver buckets of chilled French champagne. Their wives, disdainful of the muddy waters of the Amazon, sent linens to Portugal to be laundered. . . . The great symbol of excess was the Manaus Opera House, a monumental Beaux Arts extravaganza designed by a Portuguese architect and built over a seventeen-year period ending in 1896.³

The rubber boom propelled the overlooked and obscure Bolivian east into the national and international imaginary. In addition to mass migration from across the Andes and Europe, it brought about the foundation of towns, land grants to private persons by the national government, the cartographic and scientific exploration of the rainforest, the incorporation of hitherto marginal territories into state administration, and the redrawing of the country's boundaries, concurrently with the concession of vast tracts of land to national and foreign-owned extractive companies.⁴

To legitimize the extractive expansion, the rationale of the modernist discourse in Bolivia came down to three basic postulates. First, the ideas of progress and civilization were generically attributed to that economic activity, as opposed to the savagery and wild nature (*naturaleza salvaje*), as one notorious rubber tapper put it,⁵ of the Amazon rainforest and its inhabitants: "Without rubber this faraway region would still remain unknown and undisputed; moreover, today, should the rubber industry disappear, any activity, any progress would die."⁶ In the regionalist imaginary of the Bolivian lowlands, the rubber industry was seen as a driver of national development and as the successful counterpart to mining, an industry historically associated with the Andean highlands.⁷

Second, the jungle was perceived as a desolate desert open to opportunities. The Achilles heel of the industry was the scarcity of labor, and a mixed workforce had to be consolidated: *mestizos*, Andean migrants, foreigners, and also members of indigenous tribes, such as the Cavineños, Araonas, Mojeños, and so on. Within the rubber labor system—the so-called *habilito*—a patron assigned a given territory to a tapper, where the latter would collect the rubber milk and then smoke-dry and coagulate it into rubber balls (*bolachas*). The patron advanced food, medicine, weapons, tools, and clothes to the tapper, which the tapper would pay for in rubber, settling part of the debt and receiving more supplies as advance payment, thus restarting the

credit cycle.⁸ Rubber barons had exclusive rights over the purchase of the rubber and the selling of supplies so that the tappers were trapped in a vicious circle of debt that was hard to break even for European workers.⁹ Contemporary debates were frequently focused on how to recruit laborers, who sometimes were willingly engaged but other times forcibly hired.¹⁰ Indigenous workers were mainly seen as supporting actors, while the tappers facing heat, malaria, and attacks by the "savages" were presented as the heroes of civilization. The bottom line was clear; the natives had to become integrated into the agenda of progress or else be eliminated.¹¹

Third, and most importantly, there was a notion of the rainforest as an almost endless source of natural wealth. Indeed, the literature reveals the extended utopia of an infinite nature. It usually consisted in a mere enumeration of natural resources; while the Bolivian highlands contained gold, silver, tin, and copper, the lowlands offered rubber, quinine, coca, coffee, cocoa, tobacco, cotton, and sugarcane, and, among these, rubber was clearly the crucial staple, which no one thought could ever be exhausted:

Every year several expeditions explore the Beni region, penetrate its forests, find new tributaries of rivers, examine the land and come back with surprising stories of gold mines and the abundance of precious gemstones, the opulence of pastures, agricultural valleys and tropical fruits, and, crowning it all, the limitless treasures of rubber, one of the main products of world commerce.¹²

In some cases, this discourse of opulence reached quite a romantic fascination, akin to what William Cronon called "the sacred grandeur of the sublime."¹³ Having spent several years working with rubber in Bolivia between 1907 and 1922, Swiss rubber tapper Franz Ritz eloquently describes this magnificence:

There's life everywhere—from left to right, up and down ... images like in *One Thousand and One Nights* come one after the other, as if in a film. This tropical splendor is a delight to the eyes. The air is filled with charming aromas. Beetles and other strange insects buzz and hum. There is no other place in the world where vegetation proliferates with such voluptuous and unbridled exuberance.¹⁴

These postulates, to be sure, reveal a predatory logic in the Bolivian modernist rhetoric, obsessed with exporting natural resources and integrating the Amazon rainforest—and, therefore, the whole country—into the global economy. They also reveal, however, the canonical consensus about the rainforest being a deserted, wild space,

teeming with endless resources. Indeed, the Amazon rainforest would only come to be perceived with anxiety as a fragile, endangered, finite space toward the very end of the twentieth century, the time both of its most intense destruction and an emerging global consensus on the necessity of rainforest conservation.¹⁵

The perception of the rainforest as endless in the nineteenth century is also evident in discourses about its population. As Cronon observes, “the myth of the wilderness as ‘virgin’ uninhabited land had always been especially cruel when seen from the perspective of the Indians who had once called that land home.”¹⁶ Amazonia was, of course, not deserted, but the indigenous owners of most of the rubber territory were commonly stereotyped as barbarous, savage, or even cannibals in order to justify land dispossession.¹⁷ Indeed, numerous tappers believed that, among the endless resources, figured the natives themselves, who were as natural as the plants or the animals; once inside the credit cycle, workers were kept in permanent debt, and many observers even refer to the *habilito* system as a sort of slavery. Debates about labor conditions, involving several social actors—missionaries versus rubber tappers, *caucheros* versus *siringueros* among tappers, and so on—should in fact be understood along those lines.¹⁸ Ernst Leutenegger, who worked in the famous Casa Suárez and knew firsthand the Bolivian rubber industry for a whole quarter-century (1905–30), summarized the issue:

The product collected by dark-skinned, shabby, and skinny people constituted the source of the gold river that flowed into the pockets of rubber speculators from Manaus, Pará, New York and London. ... A large part of the indigenous population never returned to their homes. Like the Moloch god, the jungle swallowed everything.¹⁹

There were nuances to the predatory ideology, connected to technical or botanical features. We speak generically of “rubber,” but, on the one hand, there was indeed *caoutchouc* (*Castilla elastica* or *Castilla ulel*) and, on the other, *siringa* (*Hevea brasiliensis* or *Hevea benthamiana*), which required very different forms of exploitation, varying in terms of the modes of extraction and commercialization they required. *Caucheros* felled the tree to obtain lower-quality and, hence, cheaper latex, while tappers made incisions to get finer and more expensive rubber. The former entailed a more nomadic and destructive method of extraction, while *siringa* allowed for a more sedentary, methodical, and less aggressive form of exploitation. Consequently, some *siringueros* claimed their *cauchero* colleagues impersonated a degraded and irresponsible version of the extractive endeavor and even presented *siringa* as a more ecological industry *avant la lettre*.²⁰ However, historical sources also show that differences were not

merely technical. The Amazonian regions, having as much *caoutchouc* as rubber, were normally border areas where tensions abounded, ranging from informal skirmishes (for example, the Juruá and Purús river basins) to formal wars between states (for example, the Acre War in 1899–1903 between Bolivia and Brazil). In these contested spaces, technical divisions were often interpreted in a nationalist key; Peruvians were described generically as *caucheros*, while Bolivians or Brazilians appear as *siringueros*, when, in fact, it is clear that in most cases there was cooperation with trade partners going beyond borders and that the very same traders dealt both with *siringa* and *caoutchouc*.

An important source of complexity relates to the sustainable condition of rubber. As early as 1901, a technical report of the *India Rubber World* pointed to the possibility that rubber might become exhausted. It described the dangers of limiting business to the wild variety and advocated large-scale cultivation, mentioning the waste of rubber in defective processes, the inexistence of government regulation, and the lack of improvement in navigation or railways.²¹ But this diagnostic was not shared in Bolivia. The idea that rubber trees would always be at hand, never-ending and eternal, indeed allows for a better understanding of the overwhelming attraction of a merchandise item that literally "oozed from the trees."²² On account of a utopian perception that the riches of wild rubber were inexhaustible, neither the Bolivian government nor the merchant houses seem to have seriously considered maximizing benefits through the setting up of plantations and practically no one managed to foresee the looming crisis.

While rubber demand flourished in Brazil and was budding in Bolivia, botanist Henry Wickham smuggled from Brazil to London about 70,000 *Hevea* seeds, which were planted at the Kew Royal Botanical Gardens and then transplanted to Ceylon. Brazil did nothing to prevent it and neither did Bolivia nor Peru.²³ In Peru, it was believed that wild rubber was of superior quality, that cultivated plants were more prone to catch diseases, and that Asian workers were less skilled, though inaction might probably also have been influenced by the notorious Putumayo scandal.²⁴ In Brazil, it was claimed that rubber trees would never grow in Asia and that if they did they would either not yield rubber or only yield rubber of very inferior quality. When Asian rubber eventually flourished, in excellent form, and also became less costly due to cheap Asian labor, it was just too late. In 1910, Brazil still produced roughly half of the world's supply. Within two years, however, the output of the Far East equaled that of Brazil. By 1918, these plantations produced more than 80 percent of the world's supply of rubber.²⁵ In 1911, the first Rubber Congress attempted to face the crisis, and, the following year, Brazil issued a decree contemplating experimental tree plantations and a tax exemption for importing equipment and the construction of railways, but the plan was discontinued for lack of funds.²⁶

Though the Bolivian case was somewhat different, “rubber” remained a synonym for “wild rubber” from the industrial point of view. The early warning given by the report of the *India Rubber World* was never taken into account. When the value of rubber plunged from three US dollars to seventy-three cents per pound, the only reaction of large firms like Suárez was to put a halt to shipments and wait for the price to pick up again.²⁷ At any rate, with its attention focused on the struggle over borders with Peru in Puerto Maldonado and Brazil in the Acre region, the government was not in a position to face the crisis.²⁸ One of the conditions of the armistice with Brazil was the construction of the Madeira–Mamoré railway to transport rubber toward the Atlantic, but the works were only completed in 1912 when the decline of the industry could no longer be reversed.

The extended perception of rubber as a wild natural resource clearly also contributed to the blockage of any sustainable project of commercialization. This article has tracked significant variations in the imaginary of rubber as an engine of socioeconomic growth and insertion in the global economy. However, these discursive nuances were not sufficient to alter the general structure of the extractive paradigm. Despite some scattered diagnostics exposing concern about the sustainable potential of rubber exploitation—some of them external to the local industry, such as the *India Rubber World* report, and others within, like the *siringueros* preoccupation about the excesses of the *cauchero* colleagues—the underlying logic of rubber commodification in Bolivia was characterized by the combination of a predatory instrumentalism and a romantic utopia of inexhaustible nature. Thus, the rubber industry was doomed not only due to the unstoppable Asian competition but also because of an unfortunate chain of internal circumstances, among them a kind of ecological hubris.²⁹ Therefore, rubber changed everything on its way across eastern Bolivia, but it did so like a summer storm.³⁰ After altering the social, political, sanitary, economic, and cultural landscape, rubber only left ghost towns and old stories of grandeur transmitted by its current inhabitants, some of whom still longed for the times when their lives revolved around pounds sterling, gramophones, champagne, the Cachuela Esperanza theatre, and the “black gold” that flowed from the trees.

Lorena Córdoba holds a doctoral degree in anthropology from the University of Buenos Aires and is a researcher at the Consejo Nacional de Investigaciones Científicas y Técnicas in Argentina and the Centro de Investigaciones Históricas y Antropológicas in Bolivia. Her areas of expertise are ethnohistory and ethnography of South American lowlands, and she has carried out fieldwork among the Chacobo (Pano, Bolivian Amazonia) and Toba (Guaycurú, Argentinian Chaco).

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Michael Bollig

The Anxieties, Thrills, and Gains of Rarity and Extinction: From Discourses on Remnant Fauna to the Globalized Protection and Marketing of Endangered Wildlife in Namibia’s “Arid Eden”

Namibia’s semi-arid northwest, the Kaokoveld, in tourist advertisements nowadays dubbed as “Arid Eden,” has been construed as a last refuge for threatened species. It is also a place where wildlife, along with exotic indigenous cultures, is marketed to increasing numbers of tourists. Only thirty years ago, the region was labeled as a besieged desert, an ecosystem characterized by rampant poaching, extinction, and degradation, while another thirty years earlier—in the 1920s and 1930s—it had been deemed a threatened, but still bountiful, haven for endangered species. This contribution seeks to trace the

ambivalent relation between narratives of rarity, extinction, and survival and the de- and re-commodification of game. The question whether game can be commodified and, if so, under what conditions has long been contested and is still a point of vociferous debates. This article argues that it is precisely the interlinkage of narratives about extinction or rarity, on the one hand, and about commodification, on the other, that constitutes what is framed (and sold) as a last frontier, a wilderness, and an “Arid Eden.”

FROM WILDERNESS TO BESIEGED DESERT

The Kaokoveld was an Eldorado for commercial hunters in the late nineteenth century.¹ In order to safeguard remaining wildlife and to gain control of transboundary mobility, one of the first activities of the South African administration in the late 1910s was to ban hunting by local people and commercial hunters.² When the South African administration took hold of northwestern Namibia, anti-poaching measures were given priority. Cocky Hahn, who administered the area as native commissioner from 1923 to 1946, was an ardent conservationist and tellingly also the chief game warden for the region.³ Proclamation no. 26 of 1928 declared approximately two-thirds of the Kaokoveld District as part of Game Reserve no. 2, which would later become Etosha Park, in order to protect dwindling wildlife species. In the late 1920s, Hahn turned his attention to the design of a game sanctuary in the remote northern parts of the Kaokoveld, which would offer “fine opportunities for tourists and sportsmen to shoot trophies under special licences and instructions.”⁴ Of course, such licenses would have been bought with the colonial administration and would have added to governmental revenues. While Hahn aggressively opposed any inclusion of game in value chains, he was prepared to open this small and controllable window of commodification. Hahn was very interested in remnant species and devoted much of his work to protect and conserve game and what he deemed as authentic African pastoral culture. He saw both as threatened by the capitalist migrant economy that was beginning to transform north-central Namibia and by poachers operating from Portuguese Southwest Africa. He saw it as his duty to shelter the Kaokoveld, its fauna, and its human inhabitants against both for the benefit of the South African colonial empire and its elites, even if this meant deprivation and loss of resources to local people.⁵

While hunting for subsistence purposes was condemned, killing wildlife for scientific reasons and leisure among white administrators was permitted. The director of the Kaffrarian Museum at King Williamstown, South Africa, Guy Chester Shortridge organized two zoological expeditions into the Kaokoveld in the 1920s on behalf of

several southern African natural history museums.⁶ It was the aim of Shortridge's expeditions to produce a complete inventory of the fauna of northwestern Namibia and to assess the status of rare and remnant species.⁷ This included the hunting and collecting of animal specimens, primarily for scientific measurements and museum exhibitions. Shortridge devoted a long chapter to the state of elephants in South West Africa. Notably, he classified the Kaokoveld's elephants as a subspecies of their own (*Loxodonta africana zukowskyi*) and described their dwindling numbers.⁸ From the 1920s to the 1940s, the colonial administration asserted tight control over major game species—on the one hand, wildlife was stripped of its monetary value and lost relevance for local foodways; on the other hand, exclusive access to game for leisure hunting and scientific exploration was given by the state to its bureaucrats, as a token of acknowledgment and as a non-monetary benefit.

After World War II, conditions changed dramatically. With the institution of apartheid and the policies of strict segregation and separate development of reserves and later homelands, the future of the region was seen in livestock ranching. The elitist conservation agenda of earlier decades was criticized as uneconomic and anti-development. The de-gazetting of the Kaokoveld as a game reserve in 1970 was a final step in prioritizing agricultural development over conservation.⁹ Other steps had been taken before that date; in the 1960s, a large-scale borehole-drilling program was rolled out to increase livestock production and to turn the Kaokoveld into a ranching landscape. Some wildlife species were now labeled as vermin, useless animals endangering human welfare. Colonial administrators in northern Namibia's native reserves (and, since the 1970s, homelands) helped the local population to control vermin with "vermin traps" being given out on repayment.¹⁰ Factually, all game that either preyed on, or competed with, livestock was regarded with disdain; even rarity did not count as a reason for being in this environment. A modernized landscape would conserve game in specifically designated national parks and would make the most rational use possible of the remainder of the land. The De la Bat Commission, officially instituted to look into options for game management in South West Africa's northern homelands in the late 1960s, established that elephants were causing substantial damage in some northern areas. It stated that "people and elephants cannot live together" and recommended "that elephant guns should be given to responsible people on payment."¹¹ Game was to leave the area, either being violently eradicated or displaced.

Nature conservation was put back on the agenda in the northern communal areas in the 1970s. The resurgence of market-based trophy hunting and the immense increase in tourism in the commercial ranching areas of Namibia and South Africa in the 1960s, on the one

hand, and the extremely high rates of poaching in the northern homelands in the 1970s, on the other, contributed to the re-evaluation of conservation in northern Namibia's homelands. Alarmist reports on the rapid demise of wildlife in northern Namibia were dispatched throughout the latter part of the 1970s and the 1980s. A report by Fritz Eloff, a Pretoria-based professor of zoology and member of the Broederbond, suggested that the Kaokoveld's desert elephants were possibly a subspecies of their own and were most at risk of becoming extinct.¹² The South African Nature Foundation (South Africa's World Wildlife Fund [WWF] offshoot), the newly founded Endangered Wildlife Trust, and the Eugene Marais Chair of Wildlife Management of the University of Pretoria financed a comprehensive study of the elephants of the Kaokoveld, which found that desert elephants were nearly hunted out by the late 1970s and black rhino by the early 1980s.¹³ Garth Owen-Smith, a prominent Namibian conservationist and founding father of community based conservation, documents in his memoirs that the poachers of these days frequently were local administrators, high-ranking South African politicians, and South African Defense Force army staff, stationed in the Kaokoveld during Namibia's war of liberation and not, as other reports allege, local pastoralists. Furthermore, pot licenses legally allotted white officers sizeable game quotas each year. For a moderate payment, they were allowed to shoot wildlife for their own use. The demography of wildlife species also changed due to the planned removals from the area; about three hundred individuals of the threatened endemic black-faced impala were captured in a rescue operation in the early 1970s and relocated to Etosha Park and private game farms.¹⁴

The rapid demise of wildlife in a landscape that had been regarded as a last refuge of rare game species throughout colonial history irked the well-established South African elite. Conservation was found to be an important means by which to circumvent South Africa's international political isolation, and conservation successes were anxiously broadcasted to the wider world.¹⁵ Anton Rupert, the South African business magnate who cofounded the WWF in the early 1960s, involved himself personally in issues concerning conservation in the Kaokoveld.¹⁶ In 1976, Rupert, as the president of the South African Nature Foundation, proudly communicated that the prime minister of South Africa, B. J. Vorster, had commissioned the planning of the world's largest conservation area to be established in northern Namibia.¹⁷ This mega-conservation area never came about, and the region plunged into a period of civil war in the late 1970s.

"BACK FROM THE BRINK OF EXTINCTION": CONSERVATION, QUOTA HUNTING, AND EMERGING TOURISM MARKETS

After Namibia gained independence in 1990, decentralization reforms stipulated the devolvement of rights and obligations in natural resource management to previously disadvantaged rural communities.¹⁸ Earlier plans to provide space for conservation by creating more game parks were politically unacceptable, and, in the donor world of the 1990s, they were no longer marketable either. Conservation had to contribute to rural development, it had to be participatory, and it had to be economically self-sustaining in the long run. After 1996, rural communities in Namibia could apply to the Namibian Ministry of Environment and Tourism for conservancy status in order to further their claims to game and other natural resources. Adhering to the Nobel Prize winner Elinor Ostrom's design principles for common pool resource management, local communities were encouraged to establish corporate entities with a formalized membership, a well-defined territory, representative forms of internal leadership, operational systems of surveillance, and detailed conservation-oriented management plans.¹⁹ In return, conservancies were allowed to market annually fixed game quotas. These quotas were regarded as communal property of the newly founded conservancies. Income generated from trophy hunting was intended to motivate conservancy members to guard game as a valuable resource that would significantly add to local incomes.²⁰ Within fifteen years, conservancies covered most of the Kaokoveld's landscapes, and the number of tourists and, notably, touristic trophy hunters had multiplied. Incomes from trophy hunting and leases to tourist companies were growing, especially after Botswana's ban on trophy hunting in 2014.²¹ At the same time, trend lines clearly showed that the numbers for all game species, and also those for elephants and rhinos, were increasing. Wildlife was also reintroduced into the area in widely publicized moves. The most spectacular reintroduction program was the transfer of seven rhinos from Etosha to the western Kaokoveld in 2007. Black-faced impalas, a species that had been evacuated from the Kaokoveld in the 1970s, was reintroduced to the area in the 1990s. All conservancies in the Kunene region had received wildlife utilization quotas by 2015, and some of these were sold to trophy hunting companies.²² The three trophy-hunting companies operating in the Kaokoveld brought to the region well-paying tourists, who shot game along pre-ordered lists, collected their trophies, and made photographs with the kill, while the meat was distributed to nearby communities. A wide range of game was put on the quota of conservancies in the Kunene region.²³ While rare and emblematic

species sold quickly and at high prices, other game was not favored by trophy hunters. Currently, the quota is only fully utilized for status species like elephants, lions, or crocodiles. In other cases, it is not used at all; of some 113 baboons offered on the list in 2012, only six were actually hunted. The Kaokoveld's multi-species assemblage of rare and sometimes not-so-rare animals has been partially commodified and yields sizeable incomes to a range of tourism entrepreneurs and rural communities. The lion's share of incomes, however, remains with the private sector.²⁴ The unequal and strongly market-led distribution of gains as well as the more fundamental concerns over animal rights are nowadays raised against trophy hunting on the international level. In Namibia, however, conservationists and a majority of local farmers and pastoralists think that community-based conservation is only possible, if at all, with trophy hunting. Given increasing game numbers and the consequential increase of human-wildlife conflicts, it is little wonder why those concerned with conservation in Namibia opt for this way of utilization.

The websites of conservationist non-governmental organizations, donors, and the respective ministry describe a success story. Game that had been nearly extinct is claimed to have rebounded, and market-led conservation is seen as a bulwark against extinction. The engagement of local communities, public-private partnerships, and intricate surveillance systems involving local game guards scrutinizing the area as much as aerial surveys and collaring of animals has apparently provided secure places for wildlife; it is an Arid Eden.²⁵ These optimistic reports are counteracted by very recent news on a renewed upsurge in poaching and far-reaching plans on mining and the construction of a large hydroelectric dam.²⁶ Eden may not be so secure as it seemed only some years ago, so long as it is traded on capitalist markets. It may be time to reconsider (1) global obligations for biodiversity maintenance on the periphery; (2) the close (if unwanted) linkages between rarity, extinction, and game as commodity; and (3) the construed antagonisms between conservation and pastoral/agricultural smallholder livelihoods. In order to do so, there is a pertinent need to acknowledge that contemporary and future approaches to conservation are built upon, and entangled with, earlier colonial and postcolonial approaches to the topic; there is no shortcut to progress—not in development and not in conservation.

Notes

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- 3 Patricia Hayes, "Camera Africa: Indirect Rule and Landscape Photographs of Kaoko, 1943," in *New Notes on Kaoko: The Northern Kunene Region (Namibia) in Texts and Photographs*, ed. Giorgio Miescher and Dag Henrichsen (Basel: Basler Afrika Bibliographien, 2000), 48–73.
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- 5 See D. Henrichsen et al. (eds.), "Rethinking Empire in Southern Africa," *Journal of Southern African Studies* 41 (2015): 431–35, for a discussion of the concept of empire in relation to South African colonial policies, infrastructures, and elites.
- 6 Guy Chester Shortridge, "The Third Percy Sladen and Kaffrarian Museum Expedition 'Ovamboland,'" SWAA 1331/198/6/2, NAN; see also Leslie Witz, "Hunting for Museums," *Journal of Southern African Studies* 41 (2015): 671–85.
- 7 There were numerous accounts that the quagga, which was thought to be extinct since the late nineteenth century, was still living in these remote parts of the South African mandated territory.
- 8 Guy Chester Shortridge, *The Mammals of South West Africa: A Biological Account of the Forms Occurring in That Region* (London: William Heinemann, 1934), 358–59; see also Witz, "Hunting for Museums," who draws our attention to the enormous scale and the practices of hunting for museums.
- 9 Anthony Hall-Martin et al., *Kaokoveld: The Last Wilderness* (Johannesburg: Southern Book Publishers, 1988), 61. The Odendaal Commission had recommended a massive reduction of the extent of Etosha Game Reserve and had advocated that the entire Kaokoveld be de-gazetted to pave the way for agricultural development.
- 10 Annual Reports 1946–1952, NAO 61 9/1, NAN.
- 11 An die Minister van Bantu Administrasie en—ontwikkeling en die Administrateur, report oft he Komitee van Ondersoek na Naturbewaring en Tourisme-probleme in Bantoegebiede van Suidwes Afrika, BOP 83 21, pp. 10, 14, NAN.
- 12 Personal communication with Robert Gordon.
- 13 The Johannesburg-based Endangered Wildlife Trust began its involvement in the Kaokoveld in 1978 after its chairman visited the region together with Eloff. For a discussion of the University of Pretoria study, see Mitch Reardon, *The Besieged Desert: War, Drought, Poaching in the Namib Desert* (London: Collins, 1986), 55,

84. For a discussion of the origins of the Endangered Wildlife Trust's involvement in the Kaokoveld, see *ibid.*, 83.
- 14 Wendy C. H. Green and Aron Rothstein, "Translocation, Hybridization, and the Endangered Black-Faced Impala," *Conservation Biology* 12 (1998): 475–80.
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- 21 Michael Bollig, "Towards an Arid Eden? Boundary Making, Governance and Benefit Sharing and the Political Ecology of the 'New Commons' of Kunene Region, Northern Namibia," Africa Seminar, Centre of African Studies, November 17, 2016; Bollig and Lesorogol, "Pastoralism and the New Commons."
- 22 Michael Bollig and Elsemi Olwage, "The Political Ecology of Hunting in Namibia's Kaokoveld: From Dorsland Trekkers' Elephant Hunts to Trophy-Hunting in Contemporary Conservancies," *Journal of Contemporary African Studies* 34 (2016): 61–79.
- 23 *Ibid.*
- 24 The website of a trophy hunting company advertises the rarity of some species to be hunted in the Kunene region. See "Namibia," JR Hunting, accessed July 17, 2019, <http://jrhunting.com/de/namibia>.
- 25 See "The Nature Conservancy in Namibia," The Nature Conservancy, accessed July 17, 2019, <https://www.nature.org/ourinitiatives/regions/africa/where-work/namibia.xml>; "The Desert-Adapted Elephants of Namibia's Kunene Region," Namibia, accessed July 17, 2019, <https://namibiaturism.com.na/blog/The-Desert-Adapted-Elephants-of-Namibia-s-Kunene-Region>.
- 26 See "End of the Game for Namibia," Africa Geographic, March 23, 2015, <https://africageographic.com/blog/end-of-the-game-for-namibia/>.

Jean-Baptiste Pettier

Re-Enchanting the World: Seahorses’ Magic and the Global Trade of Affect for Wildlife

Since the 1990s, incidents of seahorse trafficking have been uncovered in dozens of countries.¹ The scale of these activities is global, with estimates of the volume of global trade varying between 15 and 150 million per year, and the trade network includes countries like India, where seahorses have been considered a major commodity since the early 2000s, or Peru, where a full boat containing up to eight million dried seahorses was intercepted in 2016.² Seahorses are likewise a major object of marine conservationist discourse. Diverse groups dedicated to the protection of seahorses insist that some of their subspecies are under direct threat of disappearing in the next decades on account of their commodification, an interpretation reinforced by the observation of a reduction in body size of the seahorses marketed and by dramatic drops in their observed populations in particular areas, testified to by fishermen.³ Since 2004, seahorse species have been listed in Appendix II of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES).⁴ Associations dedicated to their specific protection began to appear in North America and Europe in the 1990s. In this article, I will enquire

into the reasons both behind seahorses' commercial appeal and the mobilizations for their protection. I will emphasize that the mysterious aura attributed to seahorses is a common point to all sides with an interest in them and that the "magic" attributed to wild seahorses should be considered, as a consequence, as being the focus of both the trade and the protection of the species.

The widespread availability of seahorses for sale in so many different places is linked to the multiplicity of uses that the fascination for seahorses generates: medical ingredient, barbecue delicacy, aquarium inhabitant, decorative item, or curiosity. In China, allegedly the main area of seahorse consumption today, the medical and culinary use of seahorses is more than a thousand years old.⁵ But seahorses have also long been used in the traditional medicines of the Philippines, Korea, and Japan as well as in those of Latin America, India, and the Arabic world.⁶ In Brazil, they are noted among the species that receive the most versatile use in traditional medicine.⁷ The worldwide fashion of aquarium culture also has an impact on the species, though in more limited quantities.⁸ Finally, seahorses are sold as a commodity in urban markets and seaside souvenir shops the world over.⁹

In many respects, the seahorse trade is typical of globalization trends in the resource extraction industry in the late modern and postmodern era. The trade mainly targets impoverished, underdeveloped Southern countries with large, barely controlled coastal territories. From the countries where they are fished, the seahorses flow mainly in the typical direction—toward the richer countries where they are consumed. The direction they take depends mainly on whether they are alive and sold for aquariums or dried and turned into food, medical powders, or curios.

If the seahorse trade can appear as a largely unbalanced and unsustainable one from the viewpoint of nature conservation associations, their commerce can be seen as a real economic opportunity for poor, less-developed, fishing communities. At the same time, this business also attracts modern companies; seahorse farms sprang up during the first decade of the twenty-first century in countries like Ireland, New Zealand, and Australia. Their sales are mostly oriented toward trade in live seahorses for aquariums, however, and have not met with success in the Chinese market for dried seahorses, which are used in traditional Chinese medicine (TCM).¹⁰ This is partly attributed not only to the fact that the price for farmed animals remains higher than that for wild seahorses, which are fished in poor countries, but also to the circumstance that wild animals are commonly perceived to be more effective medically speaking than farmed ones in the context of TCM.¹¹ In general, the main reasons why clients choose wild over farmed animals is their "more credible effect" (36.53 percent), their being "natural" (8.86 percent), their having "fewer side effects" (7.36

percent), and their being "more traditional" (2.97 percent).¹² The potency attributed to wild animals in the context of TCM does not mean that they cannot be farmed but simply that farmed animals come as a second choice, unless the consumers express concern about their sustainability. Other endangered animal species used as TCM ingredients, like tigers, are actively farmed in China. Seahorse farms were organized during the Maoist era, but they disappeared from the country during the 1980s out of a combination of biological and economic difficulties.¹³ Observations also demonstrate that consumers pay little to no attention to the actual origin of the consumed ingredients.¹⁴ However, they give much importance to their "healthiness," a quality that they associate mainly with the notion of the absence of pollution and, thus, wildness.¹⁵

What can explain the level of interest in seahorses? The species possesses a number of original qualities: they have the reputation of being monogamous fish with a lifelong pair bond, and they have a very specific biological reproduction organization in which the male bears the eggs until delivery.¹⁶ Following their specific reproductive mode, in which the male is described as pregnant, seahorses are attributed numerous virtues in several traditional medicines, not only concerning fertility and potency but also concerning the treatment of nervous sicknesses. In the context of Chinese medicine, seahorses are declared to have the capacities of "tonifying kidney and activating Yang. The former function is essentially related to the regulation of the urogenital, reproductive, nervous, endocrine, and immune systems; the latter is said to enhance male's sexual function."¹⁷ The reproductive specificity of seahorses, however, is not only a tool of traditional medicinal repertoires. As Susanne Schmitt has observed, the marine biologists who attempt to protect seahorses often use it to justify their choice of species: "The stories that circulate about the Syngnathid family—sea-horses and pipefish—are shaped and colored by how they organize care and by how this care is interwoven with gender: male seahorses become pregnant."¹⁸ The notion that male seahorses can become pregnant reflects the projection of humans of their own mammal reproductive mode on a species of fish, whose reproductive behavior is not really comparable to that of mammals. However, interestingly, it is the vocabulary that marine biologists use, thus constructing an imagined link from humans to seahorses, that revokes the practice they describe at the same time.

More importantly, seahorses have a very peculiar appearance. For millennia, the shape of this small animal seems to have captured the symbolic imagination of various societies around the world, who conferred upon it mythical and mystical attributes, sometimes linking it to their deities. The myths and stories concerning seahorses give them a significant place in the imagination of the marine world, as indicated by their nominal association with horses and dragons in

various traditions and languages, from Ancient Greece to Aboriginal Australia and in some Native Americans tribes.¹⁹ This interest with respect to seahorses, however, is a double-edged sword; it is both what makes them worth talking about, since accounts of such animals raise interest and curiosity, and what makes them fascinating, valuable, and, thus, worth trafficking. Like many other animals or vegetables used in TCM, the consumption of seahorses is not reducible to their therapeutic use. They are, above all, a foodstuff considered favorable to human health and, thus, often consumed without medical prescription. This is linked to the peculiarities of Chinese cuisine, in which the consumption of rare and out-of-the-way food is given a particularly high degree of social significance. Kwang-chih Chang notes that Chinese foods are as much characterized by their diversity as by the fact that food styles are considered socially distinctive; the refinement and luxurious character of one's meals being an essential indicator of one's economic level and social class. Eugene Anderson observes that "the more strange a food, the more power is ascribed to it."²⁰ This power is attributed not only to the ingredient itself but also to those who can access, afford, and consume it. The perceived wildness and rarity of an animal reinforce the distinctive character of its consumption, even if it remains for the majority of the consumers at a symbolic level; they do not necessarily expect the animals they consume to really have been taken from the wild. Referring to classical anthropological terminology, one could speak of this power as being the "mana" of these culinary ingredients. Those who can consume them incorporate their power through the act of consumption.

It is not only Chinese gourmets who appreciate the peculiarity of seahorse's appearance and wild nature. The marine biologists who try to save them describe the seahorses as "magic[al]" and "charismatic" because of their body morphology, scarcity, and forms of reproduction, and they devote particular attention to them for this very reason.²¹ The tourists who buy them in souvenir shops or collect their dead bodies on the beach seem to think similarly. Furthermore, seahorses are the only species employed as seafood to have received protection in the CITES's classification list. Finally, we know of the trafficking because it is reported, and the reason for this is certainly that it is also a good story in journalism. Indeed, wild seahorses focus attention. To put it simply, there would be neither the consumption and trade of seahorses nor the media reports concerning them, nor, indeed, associations dedicated to their protection, without the capacity of seahorses to attract audiences, clients, activists, and money.

Wildlife species under the pressure of commerce, globalization trends, and rapid environmental degradation number in the hundreds of thousands, but most of them are ignored because they lack precisely what leads seahorses to be protected as well as commodified: charisma.²² Under the header "role of the species in the ecosystem,"

the marine biologist Sarah Foster notes that "seahorses are a group of charismatic fishes that serve as flagship species for marine conservation. Little is known, however, regarding their functional role in the ecosystem."²³ This reference to seahorses as a flagship species is more than a rhetorical trick since that is the role they are commonly assigned. The biologist Helen Scales also refers to the seahorse as a charismatic animal, writing that "seahorses are being used as catalysts for conservation initiatives; they are being held aloft as poster species to help muster support for protecting the oceans. They are touchstones to remind people of the vulnerable, beautiful creatures that live there, giving us a reason to care."²⁴ Their disappearance is also used as a reminder of the need to protect the earth's oceans from pollution, as seahorses only survive in clean waters. This dimension is made explicit by the Canadian marine biologist Amanda Vincent of the University of British Columbia, who founded Project Seahorse in 1996, and explains her choice of the seahorse as a flagship species to attract attention to the necessity of protecting a coastal environment by referencing their popular appeal.²⁵ "Saving seahorses means saving our seas" is a major slogan of the project. Indeed, as Jamie Lorimer writes, "affect provides the vital motivating force that impels people to get involved in conservation" and that "flagship species ... are the highly visible icons of conservation that are most likely to trigger sympathy, awareness, and (most importantly) resources from rich Western patrons."²⁶ This animal charisma is not only inherent but also relational. Working on the cases of dolphins and elephants, Gregg Mitman analyzed the complex apparatus behind charisma production and its close relationship with economic, scientific, media, and even military interests.²⁷

Considering the case of the seahorse, however, it is important to note how the charisma of seahorses finds itself within an intricate network of interests and cultural milieus. Wild seahorses are granted at the same time the power to attract humans, to cure their many ailments, to demonstrate their social status, and to convince them to save the oceans. This magic ascribed to them can be acquired by eating them or by putting them on posters, but it is always a central element of the attention they receive, so much more than many other species. Their visibility in today's human world, as consumable, admirable, or protectable animals, translates into our will to reach their world, imagined as being untouched. Seahorses stand for human competition for status in their respective societies and reflect the power of those who can choose to boil, grill, study, or photograph them. We literally en-"able" them, even if in a passive way, and make of their innumerable abilities—to save us or the oceans—something that can be longed for.

Jean-Baptiste Pettier holds a doctoral degree in social anthropology from the *Ecole des Hautes Études en Sciences Sociales*, with a broad interdisciplinary background in social sciences and a specialism in Chinese society. His main research thematics concern sentiments, affect, and morality and their relationship with political and economic conditions.

Notes

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Thomas Widlok

The World as Garden, Laid in Value Chains

Debates about the commodification of the wild are not limited to academic circles or negotiations between specialists in conservation non-governmental organizations and wildlife ministries. Rather, the arguments of the debates are echoed and fuelled by cultural imagery held “on the ground”—for instance, among trophy hunters, tourists, and local residents of wildlife areas. This contribution includes observations from ethnographic field research with trophy hunters and with local hunter-gatherers in southern Africa over the last two years. While my main goal was to record the interaction between these groups, I often encountered positions that dealt with the opposition between conservation and commodification. Some visitors invoked the image of the wildlife reserves as a remote Garden of Eden, while others were quite conscious of what they saw as their role in global value chains. A German hunter visiting Namibia, for instance, told me it would be best to “attach a price tag to the animals, so they would be taken care of. The reason why there is overexploitation is because nature appears to be ‘free.’” A Namibian calling in on the chat show of the national radio service, by contrast, echoed the position of the Namibian government that more animals should be considered national heritage and not subject to market considerations. I shall argue in this contribution that it is not only the case that expert discourse is trickling down to everyday debates, but, conversely, the

positions held by experts in the field of wildlife conservation and commodification are also very much shaped, and grounded, by their own cultural background. Despite the often vicious, and anxious, controversies between conservationists and market liberalists, I argue that the dominant groups all share a fairly similar worldview—namely, one that is predicated on notions of cultivation, domestication, valorization, and the concept of the wild in the first place. They distance themselves from earlier colonial and imperialist images that portray the African bush as a wild beast that has to be put in chains like King Kong. However, they do invoke a widely shared notion of the world that is (or should be) a garden and that, at the same time, cannot escape the logic of value chains—thus, a world as a garden that is laid in chains.

In what follows, I will be looking in particular at two tropes that feature prominently in debates about the commodification and conservation of the wild: the concepts of gardening—which includes the establishment of parks, conservancies, wildlife management, and protected areas—and of “value chains,” a broad understanding of the economy as made up of discrete steps and transactions whereby value is added at every step of converting raw materials into products for sale to the end customer. I propose that both of these tropes carry a specific cultural bias, which, however, often goes unacknowledged since both are frequently presented, or at least tacitly accepted, as instances of human universals, free of any specific cultural baggage, so to speak. I argue that these tropes are (anthropologically speaking) far from covering the whole spectrum of ways of dealing with the animals and plants that are commonly classified as wild. By contrast, commodification and conservation are in many ways complementary antinomies. It is possible to fundamentally widen the spectrum, and broaden our perspective, by incorporating research with hunter-gatherers who have so far had less impact on the terms of the dominant political and scholarly debates.

CONSERVATION AND COMMODIFICATION AS COMPLEMENTARY ANTINOMIES

My first proposition is that the main strategies for trying to overcome the opposition between commodification and conservation consist in seeking to eliminate one at the cost of the other. As indicated above, for many commercial hunters, there is no contradiction between commodifying and conserving nature since commodification would encompass conservation. To them, it is the lack of commodification—the failure to put a price tag onto natural resources—that creates problems of overexploitation. The complementary position is that of denying the antinomy by expanding

conservation. This strategy is prominent not only in Botswana but also in other parts of southern Africa. State wildlife conservationists in Namibia, for instance, seek to keep certain species such as rhino entirely out of the market. Unlike most other animals that can be owned by commercial farmers—and which, accordingly, can be shot and sold—rhinos are declared to belong exclusively to the nation-state so that they cannot be owned and commercially transacted by anyone else. Here, conservation is sought by insulating its object from the market and commodification. Although states, organizations, and individuals may differ with regard to which animals should be used commercially or should be exempted by conservation (or what the appropriate quotas and protections should be), the disputing parties see their main strategy as one of shifting the boundaries toward one of the two poles that constitute the antinomy. In other words, they effectively aim to shift species, or sections of certain species in specific times and places, across the boundary that has been established between the domesticated (commercialized) and the non-domesticated and wild (non-commercialized). They all accept that this is the all-encompassing dividing line, and they define their own position by negation of the opposing view. However, once we accept that the distinction of domesticated versus wild is neither universally held nor applicable, then the boundary between commercialized and non-commercialized also becomes less firm.

Anthropological theory has tried to capture the political debates around commodification in terms of the processual character of how things become commodified. According to the social life of things position, commodities are not certain types of things but, rather, any thing can become commodified since, according to Arjun Appadurai, “the commodity situation in the social life of any ‘thing’ [is] defined as the situation in which its exchangeability (past, present or future) for some other thing is its socially relevant feature.”¹ The social counter-movement to commodification is that of “singularization”—that is, the process of making things incommensurable and not fit for exchange for money or other items with a calculable value attached. Hence, things can move in or out of a commodity situation. In the political debate about which things can or cannot (should or should not) be commodified, environmentalists claim to be breaking with a rationalistic modernity that strives toward ever-greater commodification. Moreover, environmentalists and conservationists are being recognized (also by their adversaries) as breaking with modernity in this regard. However, as Vassos Argyrou has shown, environmentalists continue the modernist project in many ways—in particular, through a stance of distancing.²

Commodifying is a universalizing move, allowing for things to be measured against a single standard and to be exchanged against one another. Take the example of land; the loss of one piece of land,

however rich in resources, can be compensated by another piece of land because there is a standard, established from a point of equidistance to all land, for assessing amongst other things the carrying capacity or the biodiversity of one piece of land compared to another. Conservationists who oppose commercialization are typically no less universalizing in their arguments. When protecting the land or species by singularizing, taking them out of commercialized transactions, the protection is typically applied universally. With regard to land, the prohibition to use the land has for a long time been applied to everyone in a "parks without people" policy.³ In these, and other, cases, the basis for the singularizing move are based on establishing and enforcing international standards derived from universal goals (of resource protection, biodiversity maintenance, carbon dioxide reduction, and so on) that are universally applied from a distal position "from nowhere in particular." As Argyrou has pointed out, the environmentalist justification for preserving land—for excluding it from commodity markets by making it non-alienable—makes reference to a universal humanity, which is often glossed in terms of "future generations" or "for the planet" or "as a biodiversity heritage."⁴ This, too, is a logic of distancing since the damage done to nature through commodification is presented as a damage done to humanity or some other abstract category such as the nation or the public. In this analysis, the advocates of commodification and those pushing toward conservation are in conflict with one another, but they are both caught in the same paradigm, and they ultimately share a position of distance.

THE WORLD AS GARDEN

The commonalities between commodification and conservation stances also emerge when they are set in opposition to the particularist claims of indigenous people. In Namibia, the recent land claim by the Hai//om San who filed a lawsuit in order to re-appropriate Etosha National Park as their rightful land was met by opposition from both commodification advocates and conservationists who currently use this land. The privileged and exclusive usage of this land by particular people was seen as problematic. This echoes the situation elsewhere when indigenous people claim particular rights to particular stretches of land or seek to use the land in ways that benefits them but is arguably detrimental to the environment (or to the interest and income of the wider public). The particularist demand meets the opposition of both commodification/market advocates and of environmentalists/deep ecologists. Their particular interests and perspectives are interpreted as singular interests that violate against the premises of

universal markets as well as against universal notions of global environmental protection.

A number of explanations have been put forward why commodification and environmentalism share common ground in this way. Hugh Brody has pointed out that we are ultimately dealing with an underlying “horticulturalist bias” or a “culture of gardening” that has become dominant in global history.⁵ This bias can be traced back to the worldview of the monotheistic religions of Judaism, Christianity, and Islam, the religions of the axial age that have given rise to a “gardening ideology” that is dominant at present. While Brody may have overstated the distinction and underestimated the in-between positions, a similar bias has found its way into the dominant concept of culture. The old European culture concept that is derived from the Latin notion of “*colere*” (to cultivate / to nurse) also informs the dominant concept of economy that is derived from the Greek *oikos* (house) and *nomos* (rule)—the management of the house—and a theory of value as that which facilitates the accumulation of goods in house-based societies.⁶ Other types of cultural activity—in the sense of learned, trans-generational patterns of behavior—that do not fit the cultivating/householding image, Brody and others argue, continue to be marginalized, excluded, or made invisible. Examples are the distinction between the “productive” work of agriculture that is contrasted with the “appropriation of nature” by hunter-gatherers, between *Kulturlandschaft* and *Naturlandschaft*, between culture and nature, and between domesticated resources and the wild. In Namibia, these dichotomies are not simply ideological but are also put into practice in politics and interethnic relations. Horticulturalists and their descendants who dominate today’s politics refuse to recognize hunting and gathering as a legitimate form of land use, and they insist that certain types of houses have to be built, that certain types of enclosures must be created, and that fields are ploughed and homesteads are maintained in a certain way. The most telling example is that in all regions where there is little gardening, there is a strong alliance of local politicians and international donors to create gardening projects, despite a long record of failed gardening projects among the San in Namibia. There are, therefore, practices in place that maintain the dichotomy even though it is beginning to soften (again) in other regions of the world, for instance, as more stretches of land are purposefully left fallow or as areas of previous intensive use are left to processes of “rewilding.”

When looking for alternatives to these antinomies and dichotomies, it is therefore useful to look at cultural traditions beyond horticulturalism and the circle of traditions predicated on an ideology of the world as garden. In Namibia, alternative views are cultivated by various San groups. When conducting a free listings and sorting task with ≠Akhoe Hai//om, for instance, I found that the categories for

animals (*xamanin*) and plants (*hain*) included both those that horticulturalists, and their scientific descendants, would categorize as domesticated and those that they would call wild.⁷ Similarly, wild versus domesticated was no relevant distinction when the ≠Akhoe Hai//om categorized their environment (glossed as ≠*namibeb* or ! *ha! hais*) because no categorical distinction is made between the built environment (huts, fire places) and features of the natural environment (hills, dunes, riverbeds). This is echoed among hunter-gatherer people elsewhere. The Batek in the rainforests of the Malaysian peninsula, for instance, do not support the divide between nature and culture that Philippe Descola discussed for South American horticulturalists.⁸ By contrast, they make other distinctions, for instance, between all of the inhabitants (human and non-human) of the forest and those who behave like outsiders.⁹ Moreover, many of these distinctions are not categorical, in the sense of being independent of action, but they depend on how human and non-human entities behave and how they relate to one another.

We are therefore not just dealing with different categorizations but, more fundamentally, with different ways of establishing categories in the first place. Instead of categorizing all lions as wild and all dogs as domesticated, hunter-gatherers tend to conceive of particular animals in terms of their specific knowledge that is built up and continually updated, for instance, in the course of a hunt, in the course of a lifetime, and as embodied across generations.¹⁰ The horticulturalist bias in conceptualizing the environment, by contrast, is focused on outcomes, prototypically the point in time when the harvest is brought in. What counts is what can be counted, as species saved or profits made. The earlier discussions on commodification and conservation are, to borrow Andrew Abbott's words, all about "where it ends up" instead of "the commitment to the getting there."¹¹ This is most pronounced in the notion of value chains, which is offered as a way of thinking about the commodification of the wild.

LAI IN VALUE CHAINS

There are a number of anthropological objections to the notion of value chains that has become prevalent in geography as a discipline and in the analysis of commodification more specifically. One point of critique is that value chains are based on a rather limited horticulturalist notion of culture, as hinted at above. Cultivation here is solely seen in terms of an improvement. Whether one is dealing with objects or skills, there is a bias toward assuming that domestication and integration into commodity chains necessarily adds value. This turns a blind eye toward processes of "cultivating towards the negative."¹² Just as any learned or trained behavior can improve skill, it

can also entrench problematic or harmful practices. Value chains, one could argue, are therefore not necessarily increasing and adding value, but they can also do harm and decrease value. Moreover, these negative effects may be highly relevant and important independently of what is assumed to be the outcome of a complex commodification process, be it the generation of energy or the extraction of substances. Here, the horticulturalist balancing of accounts (lateral damages for the higher good) often conflicts with the resistance of indigenous foragers against projects that do certain harm in the process.

A second line of reasoning objects to the notion of a chain in the first place and its usefulness for describing non-mechanical life processes. As Tim Ingold has pointed out, the idea that items are “enchained” but stay unaltered through their connection may work for some mechanical linkages but not for processes of life that consist of continuous lines and relations of growth over time.¹³ He proposes the image of a “meshwork” as an alternative to that of linkages and chains that ultimately reflect a mechanical worldview that is inappropriate for the living world. This applies not only to the relation between living organisms but also, more generally, to the way that agents and things are enmeshed. For instance, bringing together certain nuts and certain stones for habitually cracking these nuts creates traces on the tools that the process of joining things in repeated practice leaves; these will, in turn, create certain affordances for future connections.¹⁴ Stones that are held in the hand become increasingly smooth, while stones that hold nuts do not. The effects of being joint in a certain sequence, for instance, when assembling a bow-and-arrow set is something that is left out of sight when thinking of the living world as made up of chain links that can be rearranged and replaced as the mechanical imagery suggests.¹⁵ Despite genetic engineering and wildlife management plans, animal species are not as easily or repeatedly removed or inserted into a complex living world as links may be taken in or out of a chain because they have their particular historical imprint on the environment.

I want to conclude this contribution by adding another critique of the value chain approach. Hunter-gatherers typically do not see themselves as the original creators but, rather, see things as pre-given, as enabled or inhibited by a countless number of other agents, some human, others not.¹⁶ The connecting lines are established not just through objects that tie people together but also inversely, the lines between people can determine whether and how objects move and, more importantly, how they are evaluated. Concretely speaking, whether an animal (species) makes itself at home on my particular piece of land or not depends on a long string of enabling or disabling agents. Human connections across places are an important factor in this, but they are not the only one. Moreover, the evaluation is tensed—that is to say, it depends on prospect, moment, and

retrospect—time in the sense of the right time for something particular to be done by someone particular—which the notion of value chains does not entertain.¹⁷ The social theory of outcomes is complex, but the dominant view that we find in value chain approaches is, in Abbott's words, "thoroughly and completely bourgeois" in that it prioritizes outcomes to begin with or, as I would put it, premised on the world of the horticulturalist who calculates his harvest.¹⁸ Whether this outcome as harvest is calculated in terms of market gains (as among advocates of commercialization) or in terms of value reserved for future generations or humanity at large (as among many conservationists) is currently the main dividing line in many debates surrounding the commodification of the wild, in both specialist and popular arenas. Including the perspective of hunter-gatherers allows us to broaden the spectrum by going beyond the point at which these two options have been set up in the first place. Instead of focusing only on outcomes, such as the number of wild animals counted on a national territory, the way of getting there—namely, the process by which outcomes are expected or hoped for—takes center stage. This includes a recognition of the particular value that particular species may have in particular places and for particular people.

Thomas Widlok is professor of cultural anthropology of Africa at the University of Cologne. He holds a doctoral degree from the London School of Economics and Political Science and his long-term field research experience is with indigenous groups in southern Africa (in particular, Namibia) and in Australia. His main field of expertise is hunter-gatherer studies, but he has also done comparative research on the sharing economy and has included Europe as a field site in his anthropological writings on the economy and on religion.

Notes

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Alexander Aisher

Extending Perspectivism to India’s “Last Wild Place”: Hunting, Conservation, and Wildlife, and Its Flourishing and Decline, in the Eastern Himalayas

For conservation organizations to work effectively alongside indigenous groups in different settings across the planet, their distinctive ways of knowing and valuing the wild—and borders with it—require translation. Perspectives need to be exchanged. For hunters of indigenous groups like the Nyishi in the Eastern Himalayas, wildlife is wild by virtue of a living phenomenal and physical border with spirits. If wild animals are locally protected or conserved, this is not because they have intrinsic value, so much as up-framed value. This is something they acquire vicariously, through their spirit owners. Here, and perhaps only here, we encounter values at the heart of conservation (in theory, if not always in practice): stewardship, protection, preciousness, care, and a sense of human limits.

The notion of wilderness, and its cousin concept wildlife, has a unique place in the history of conservation. Few notions have exerted greater influence upon the modern Western imagination of ideal nature and the destructive impacts of humanity upon it.¹ Over recent decades, the ideal of protecting areas of wilderness from human encroachment has been a powerful force driving the establishment of protected areas across the planet—arguably, one of the conservation movement's greatest successes. Yet, in the twenty-first century, wilderness as “a guiding light for conservation” has come under sustained scrutiny.² Often conceived as a purified domain of nature, many modern notions of wilderness tend to “negate long histories of association between people and places,” conceptually excluding people from nature thus conceived.³ This can have potentially devastating impacts on (often already vulnerable) populations upon whom conservation relies.

Responding to this conceptual danger, this article seeks to clarify how upland hunters of the Nyishi tribe in the Eastern Himalayas conceive of areas of the landscape analogous to modern Western notions of wilderness—areas that hunters call *uyu-nyoku* (spirit land). In this mountainous and inaccessible ecological bridge between South and Southeast Asia, we encounter an indigenous formulation of wilderness that is, in some senses, counterintuitive; while numerous anthropologists have suggested that Western notions of nature differ profoundly from those of traditional or indigenous societies, this article seeks to correct this notion and urges us not to essentialize notions of nature. In the central uplands of Arunachal Pradesh, we encounter notions of wilderness that differ profoundly from modern Western analogs but that also resonate with notions of bounded and regulated protected areas, which are central to modern conservation.

PERSPECTIVISM IN THE EASTERN HIMALAYAS

The indigenous theory (or aesthetic) known as perspectivism has exerted a profound influence on anthropology. Documented ethnographically in indigenous contexts across South America, the Pacific Northwest Coast of America, Siberia and Mongolia, and some parts of Southeast Asia, perspectivism cosmologically unfolds two central interrelated claims: first, the way humans perceive animals and other subjectivities that inhabit the world differs profoundly from the way these beings perceive humans and themselves and, second, different species or kinds may understand the *same* events in which both participate in radically different ways. Through a perspectivist ideal of knowledge, to know is to “take on the point of view of that which must be known”—to decenter the human perspective and see from the Other's point of view.⁴



Figure 1 The *nyoying* hunting ritual: six stills from the filmed ritual. Credit: Images produced by author.

However, it does not follow that the perspectivist aesthetic necessarily entails empathic or horizontal relations between humans and animals. In a perspectivist mode, hunters may seek to access wildlife by understanding how "different kinds of beings represent and are represented by other kinds of beings."⁵ However, in drawing closer to the perspective(s) of animals' spirit owners, "hypostases of the animal species with which they are associated," they also enter a distinctively hierarchical universe.⁶ To access "forms of the forest that concentrate wealth," hunters must up-frame their perception of the landscape; they must view animals "from the privileged (and objectifying) perspective" of their powerful spirit owners.⁷ Significantly, this can trigger a reversal, and redistribution, through the landscape of

entities usually considered (from a human perspective) wild or domestic; from the higher perspective of their spirit owners, wild animals are really domesticates.⁸

To date, few ethnographers have worked in Arunachal Pradesh, and of those who have, none have described indigenous knowledge in perspectivist terms. Yet this is precisely what we find here. During my first months of first fieldwork in upland Arunachal Pradesh in the early 2000s, a perspectivist aesthetic was evident in comments by the Nyishi respondents, such as “night is when humans sleep and spirits hunt” and “the souls of the dead look up to the sky where we humans live.”

Deeper enquiry revealed this perspectivist aesthetic informed the upland Nyishi framing of shifting cultivation, the heart of their subsistence economy, the seasons in which it is embedded, and associated seasonal migrations of wildlife. As villagers understand it, there exists a powerful master spirit called Dulu-Kungu Dojung, synonymous with the mountain itself, who, from his vantage point high in the mountains, views human women as they harvest rice. He watches them shake the final grains of rice from their drying mats, their final action upon completing the harvest, and (mis-) interprets this as a challenge. Pridefully, Dojung responds by displaying his own wealth of “snow-grain,” which gathers at this time of year high in the hills and mountains above human villages. This snowfall triggers, in turn, a large-scale migration of wildlife (his animal wealth), including wild boar and several species of jungle rodent, jungle fowl, and deer, down through the high temperate forests to lower elevations, which hunters gratefully appropriate during this more restful period of the year.⁹

To acquire forest meat (*nyoru-ading*), Nyishi hunters employ a range of trapping techniques and devices, which they lay in different areas of the forest. But hunters do not extract wild animals from nature (a concept that has no Nyishi equivalent); their transfer into the human domain occurs instead through social—historically and politically active—forms of exchange between humans and non-human entities. The hunting ritual Nyishi hunters call *nyoying-amchok* offers linguistic clues to what this exchange of wildlife means. The chant is permeated with verbs, nouns, prefixes, and suffixes that frame wildlife as the animal wealth of master spirits and hunting as a dispossession of such animal wealth.¹⁰ Through an animal husbandry imaginary, ritual gifts of unhusked rice grain and chicken feathers, products of the human *oikos*, serve as compensatory gifts to master spirits, offered in exchange for their labor of rearing, protecting, and, ultimately, releasing these animals.

However, exchange of this sort generates genuine anxiety among hunters, their families, and fellow villagers. Faced with human appropriation of their wealth, powerful master spirits are quick to feel jealousy, anger, and other dangerous emotions. As villagers say, hunters

tend to live short lives; in the end, master spirits take their share of human wealth: (domestic) animals, family members, or, in severe cases, entire longhouses or villages, through soul abductions, landslides, storms, or floods.¹¹ Given such threats to human wealth, it is unsurprising that when performing *nyoying-amchok*, hunters repeatedly urge master spirits to voluntarily release their animal wealth (figure 1).

Chanting beside the altar, the hunter up-frames his address by invoking numerous male and female spirit owners of animals: those who dwell in mountain peaks, mountain lakes, spirit trees, boulders, rocky slopes, caves; those who inhabit hard-to-access snowy wastes and mountaintop scrublands high above the human village; those who dwell in temperate, subtropical, and tropical forests closer to the human village; spirit caretakers of village lands; and tutelary ancestor spirits of past hunters, upon whom accomplished hunters rely. The plurality and diversity of the more-than-human perspectives that the hunter calls forth reflects the heterogeneity of the landscape itself and its generative capacity. Chanting *nyoying-amchok*, the hunter positions himself, and his hunting practice, in this dense field of (social)-ecological relations.

In this "forest of mirrors," domestic and wild shimmer and are redistributed throughout the landscape.¹² From the perspective of spirit owners, wild boar are their pigs, jungle fowl are their chickens, deer are their goats, and goral are their jungle oxen, and in the forests where they dwell, these (wild) animals wander through (domestic) spirit villages, reared and looked over by master spirits. As the hunter chants, from the perspective of their spirit owners, he is a "pig that has returned to the forest"; he is the "human bear."

The hunter's gift of unhusked rice grain and feathers is premised on something deeper and more fundamental: an exchange of perspectives. Repeatedly, he urges master spirits to see from his point of view, just as he sees from theirs (he says): to "face and receive" with "open hands" the rope bridge he ritually invokes and casts from his human bank of a river-like divide. Bridges span rivers, connecting spaces, initiating new social and physical mobilities and flows. If exchange can be achieved in the present tense of the ritual, the hunter feels sure that a kill will follow later in the forest.

RELATING TO THE WILD

The term "wilderness" originates in the Old Gothic term for "self-willed land." Likewise, "wildlife" has its root in *wildeor* (will of the animal).¹³ But words lose senses and gain others over time. In line with William Cronon's characterization of the modern wilderness concept, spirit land is not land subjected to human will; it too is

a place where “symbolically at least, we try to withhold our power to dominate.”¹⁴ Yet, for the analyst (if not for Nyishi themselves), this wilderness is also, like Cronon’s portrait of modern wilderness, a distinctively human creation. The chant is replete with images of animal-rearing householders inhabiting unseen villages. However, unlike Cronon’s depiction of modern wilderness, spirit land thus conceived is *not* arrogated to humans—spirit land is a space of more-than-human surveillance, suffused with the capillary power of unseen agents. (For this reason, when travelling through spirit land, hunters employ an alternative vocabulary and are careful to tread softly, so as not to “surprise” spirits.) Echoing romantic notions of the sublime, “the supernatural [lies] just beneath the surface” in this landscape.¹⁵

Cronon argues that “the convergence of wilderness values with concerns about biological diversity and endangered species has helped produce a deep fascination for remote ecosystems, where it is easier to imagine that nature might somehow be ‘left alone’ to flourish by its own pristine devices.”¹⁶ However, is this really a distinctively modern or distinctively Western conception? After all, this is precisely how Nyishi view spirit land. It may not be “left alone,” but its otherness from the human domain—performed through restrictions on human behavior whilst travelling through such areas, the extreme care hunters take not to surprise spirits, and notions of revenge for human misdemeanors—is woven into its symbolic texture. For Cronon, the modern wilderness concept “distances us too much from the very things it teaches us to value” and leaves “precisely nowhere for human beings actually to make their living from the land.”¹⁷ Through a Nyishi perspectivist lens, this is precisely the point. Spirit land privileges some areas of the landscape and some species at the expense of others and distances people from these things of value.

For Nyishi also, the flourishing of spirit land is premised upon its otherness. As the hunter repeatedly affirms, he has maintained the border. This border shares its origin, mythologically, with the agrarian economy itself. As villagers recount, when the first human being Abu-Tani married the youngest daughter of the Sun, she migrated with him, in patrilocal fashion, into the human realm. Across the land, she processed, scattering rice and millet and “human” grain. Nyishi frame this civilizational event, not as a “Fall” (which Cronon discerns in the historical emergence of the modern wilderness concept) but, rather, as an accomplishment. However, this new human presence triggered the jealousy of spirits, including Dojung. To placate him, the daughter of the Sun offered a compensatory gift of tree brides—“houses” for Dojung spirits—which she also scattered across human lands: fig trees (*Ficus religiosa*), which villagers identify as spirit trees (*uyu-sangney*). The upper extent of the growth of these

trees marks the terminus of human-owned lands and the human agrarian economy. Beyond this point, all land is spirit land.

This border with the wild arises, in fact, out of a deep existential threat—the danger of being consumed by angry, disenfranchised spirit owners. The border with the wild, we could say, arises as a solution to the problem of human presence in a more-than-human world. It recognizes, implicitly, the destructive power of humans. It is also a surveilling border that villagers challenge, deeply lament, and, at times, seek to dismantle, by ritually felling spirit trees. Often, however, history asserts itself; oracles indicate that such actions will elicit spirit revenge and that spirits will hold on to their land—wilderness remains wild. But, at other times, it does not. As some hunters chant (in effect): "I have honoured and maintained our border: now exchange your wealth with me."

RIVERS AND CROSSINGS: CONSERVATION AND PERSPECTIVISM

Over recent years, the human population of Arunachal Pradesh has increased rapidly. Roads, the cash economy, and associated commodity chains have extended ever further into remote forest spaces. This comes at a time of numerous new botanical and zoological discoveries and the arrival of international conservation organizations seeking to preserve wildlife here in "one of the last biological frontiers of Asia."¹⁸

The work of conservation organizations in this biologically diverse and ecologically fragile region is important and necessary. However, at another level, the new scientific, cosmopolitan, naturalistic language of conservation can trigger its own parallel proto-commodification of wildlife.¹⁹ This can happen when organizations classify animal species, even entire landscapes, by indexing them to an objective and autonomous domain of nature, purified of the messy social-ecological hybridity that permeates indigenous folk classification—a process that can unwittingly export the "properties of transportability, depersonalization, and context independence into the yet-to-be-commodified world."²⁰ A sort of conceptual colonization can occur, as embodied place-based forms of knowledge, rich with complex human and more-than-human synergies, mutualisms, and ecological interdependencies, are displaced or ignored. What is lost? Precisely the sort of "emergent real" that includes spirit owners of wildlife, spirit lands, and spirit trees. The embodied, storied, performed, felt, and imagined border with the wild disappears from view, undercutting the ecological reality that biologically rich places are "rich in relationships as well as in species."²¹